The Pebble Beach Company's
Del Monte Forest Preservation and Development Plan

DRAFT Master Resource Management Plan

Executive Summary

The Draft Master Resource Management Plan (Master RMP) is a guiding document presenting an integrated and cogent resource management program for the managed areas of habitat included within the Pebble Beach Company's (PBC's) Del Monte Forest Preservation and Development Plan (DMF/PDP). It has been required by Monterey County as mitigation for environmental impacts of the DMF/PDP identified through the California Environmental Quality Act (CEQA) review process.

The Master RMP is a synthesis of the following documents:

- The Pebble Beach Company's proposed DMF/PDP resource management plans;
- mitigation measures identified during the CEQA process;
- the ecological management implementation plan (EMIP) developed for a predecessor to the DMF/PDP project; and
- the Open Space Advisory Committee (OSAC) plan adopted for the Del Monte Forest.

The primary purpose of the Master RMP is to establish a framework to guide the preparation of the subsequent Site-Specific Resource Management Plans (SSRMPs) for each area of resource management associated with the DMF/PDP. The SSRMPs will be developed following approval of planning permits but prior to the issuance of any building or grading permits. The SSRMPs will tier off the guidance in this document and will elaborate the site-specific resource management methods, schedules, and monitoring to be applied. The SSRMPs will be prepared by a third-party consultant under contract to Monterey County, reviewed by an interagency advisory team, the Resource Management Team (RMT), and approved by Monterey County. Each SSRP will include a schedule of all the monitoring actions and contingencies which shall occur over the minimum 20-year monitoring timeframe. These schedules will be cross-referenced into a master schedule of all DMF/PDP biological monitoring actions.

Following approval of the SSRMPs, the Pebble Beach Company will be responsible for preparation of an Annual Work Plan to implement the SSRMPs. A third-party consultant under contract to Monterey County shall independently monitor work plan implementation and prepare an Annual Monitoring Report. The Work Plan and the Annual Monitoring Report will be reviewed by the RMT and approved by Monterey County. The Pebble Beach Company is responsible

for 20 years of resource management, at which time the need for continued management will be re-evaluated by Monterey County.

The Draft Master RMP presents guidance concerning the following:

- ***Administrative Implementation*** **-** structure and roles of those parties responsible for implementation of the RMP, including the process of annual work plan development, monitoring, and reporting.
- ***Habitat Management*** **-** management goals and actions specific to certain habitats
- ***Special-Status Species Management*** - management goals and actions identified specific to certain special-status plant and wildlife species
- ***Site Specific Resource Management*** **-** management goals and actions identified specific to certain locations

Supporting material is provided in appendices to the Draft Master RMP including the following:

- The Pebble Beach Company's DMF/PDP Resource Management Plans
- Resource Maps
- Site Profiles
- Prior Resource Surveys and Inventories
- Bibliography of Reference Material

Due to the extensive size of the material in the appendices, they are not provided in hard copies of this document, but are only available electronically on the project web site and on the FEIR CDROM. Hard copies are available for review at the Marina offices of the Monterey County Planning & Building Department.

As the Master RMP consists of a synthesis of prior material, it does not constitute a stand-alone mitigation measure independent of the mitigation measure identified in the project EIR or the MMRP. The Master RMP contains only information that was already available during the preparation of the Draft EIR and the Partial Revision of the EIR and does not revise the mitigation found in those documents. As such, the Master RMP is intended as a central organized presentation of the requirements for resource management associated with the DMF/PDP as identified and elaborates through the environmental review process.

It should be noted that it is not the purpose of the Master RMP nor the SSRMPs to guide construction mitigation measures to be implemented during the construction period such as erosion control or tree removal specifications, although some of the resource management measures in this document will commence prior to and during construction itself. The Pebble Beach Company is responsible to implement all adopted mitigation measures and permit conditions regarding construction regardless of whether they are mentioned in this document.

Chapter 1
Introduction

This Draft Master Resource Management Plan (Master RMP) outlines measures for resource management activities required to be conducted in association with the Pebble Beach Company's (PBC's) Del Monte Forest Preservation and Development Plan (DMF/PDP). The Master RMP incorporates resource management components and mitigation measures outlined in the environmental impact report (EIR) for the DMF/PDP, as well as components included within the resource reports and plans submitted by the Pebble Beach Company. The Master RMP is intended to provide a framework for the subsequent preparation of Site-Specific RMPs (SSRMPs) that will direct ongoing resource management activities for each specific preservation, conservation, and resource management area.

The Master and Site-Specific RMPs are not intended as 'stand-alone' mitigation. Rather, they serve as an organizing tool to ensure the Pebble Beach Company's proposed resource management measures - as modified and supplemented by mitigation identified in the DEIR, PRDEIR, and the FEIR - are implemented in a cogent, comprehensive, and geographically specific manner with proper monitoring, oversight, and management.

The Master RMP is a synthesis of the following:

- relevant portions of the Pebble Beach Company's DMF/PDP resource management plans;
- revisions and additions to the Pebble Beach Company's DMF/PDP resource management plans that are required by mitigation identified in the DEIR and the PRDEIR, as revised in the FEIR, and reflected in the MMRP, including specific performance criteria;
- relevant measures from the Ecological Management Implementation Plan (EMIP) prepared by Monterey County in 1998, including specific performance criteria; and
- goals from the Open Space Advisory Committee (OSAC) plan adopted for the Del Monte Forest.

The Master RMP does not constitute a new or separate mitigation measure. Rather, it is a consolidation of the prior resource management measures and performance criteria from the sources noted above into a single guiding document. The Master RMP provides the direction for preparation of the Site-

Specific RMPs (SSRMPs) which will provide specific detail on implementation steps by geographic area.

If the applicant's DMF/PDP is approved this draft Master RMP will be refined and reviewed by the County and the Resource Management Team and a final Master RMP will be developed subject to Monterey County approval.

While the Master RMP was designed to be consistent with the mitigations outlined in the EIR and with the applicant's resource management plans there may be minor inconsistencies. If these exist the wording of the mitigation in the EIR, as reflected in the Mitigation Monitoring and Reporting Plan (MMRP), shall take precedence.

The contents of the Master RMP are briefly described below:

Chapter 1 - *Introduction*
This chapter provides an introduction to the Master RMP and defines terms and acronyms used.

Chapter 2 - *Administrative Implementation*
This chapter presents the structure and roles of those parties responsible for implementation of the Master RMP. It also includes the process of annual work plan development, monitoring, and reporting.

Chapter 3 - *Habitat Management*
This chapter discusses management actions according to the habitat type. Management actions for these habitats constitute mitigation measures from the EIR and recommendations from resource reports and plans submitted by the Pebble Beach Company.

Chapter 4 - *Special-Status Species Management*
Management actions specific to certain special-status plant and wildlife species are presented in this chapter.

Chapter 5 - *Site-Specific Resource Management*
Specific management actions within project sites of the DMF/PDP are presented to aid in development of future site specific resource management plans. The development and preservation areas coincide to those listed in the EIR.

Appendix A - *The Pebble Beach Company's DMF/PDP Resource Management Plans* *[included only in electronic format]*
The DMF/PDP resource management plans submitted by the Pebble Beach Company are included in Appendix A. These provide background and supporting information.

Appendix B - *Resource Maps* *[included only in electronic format]*
Resource maps are included in this appendix to provide data necessary to prepare the SSRMPs.

Appendix C - *Site Profiles* *[included only in electronic format]*

Site profiles (from DEIR Appendix E) are included in this appendix to provide data necessary to prepare the SSRMPs.

Appendix D - *Prior Resource Surveys, Inventories, and Assessments* *[not circulated; on file at Monterey County Planning & Building Inspection Department offices in Marina]*
Prior resource surveys, inventories, and assessments are included in this appendix to provide data necessary to prepare the SSRMPs.

Appendix E – *Bibliography* *[included only in electronic format]*
A bibliography of material referenced in this document and additional material relevant to resource management is provided to assist preparation of the SSRMPs.

Definitions

The following definitions apply within this implementation plan. Not all definitions are precisely equivalent to those that may be used in other documents.

- *Absolute cover* - The total aerial and basal cover (the latter inferred, in the case of rhizomatous plants) of all vegetation present, not to exceed 100% (even where foliage overlaps).
- *Dune substrate* - windblown fine sand of the narrow particle size class that typically composes dunes; thus, including little or not material that is either light enough to be removed entirely (silt), or too heavy to be transported within a typical sand dune. Other soil materials are either unsuitable or much less suitable for use in dune habitat creation.
- *Non-native* - A species that is not believed to have been present prior to the advent of European humans, which has become naturalized (reproduces without human intervention) and/or is commonly planted. Some, but not all, naturalized species are considered weeds.
- *Relative cover* - The proportion of the absolute, or total, vegetative cover that is contributed by a particular species or circumscribed group of species.
- *Seral stag*e - The stage in ecological succession from recently colonized, seeded, or planted soil (“early”) through the mature plant community (“late”).
- *Special-status species*[1] - Those species identified in the project EIR as meeting the CEQA definition of “rare” including:

[1] This Master RMP does not mandate management measures for every special-status species that may occur within the project resource management areas. The Master RMP incorporates management measures where required as part of the Pebble Beach Company’s plans and those which are required by mitigation identified for project significant effects.

- species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA) (Title 50, Code of Federal Regulations [CFR], Section 17.12 for listed plants, 50 CFR 17.11 for listed animals, and various notices in the Federal Register [FR] for proposed species);
- species that are candidates for possible future listing as threatened or endangered under ESA (67 FR 40657, June 13, 2002);
- species that are federal species of concern;
- species that are listed or proposed for listing by the State of California as threatened or endangered under CESA (Title 14, California Code of Regulations [CCR], Section 670.5;
- plants listed as rare under the California Native Plant Protection Act of 1977 (California Fish and Game Code, Section 1900 et seq.);
- plants considered by CNPS to be "rare, threatened, or endangered in California and elsewhere"(List 1B species) (List 4 species were included as special-status species if they were identified as ESHAs in Appendix A of the LUP);
- species that meet the definitions of rare or endangered under the State CEQA Guidelines, Section 15380;
- species listed as ESHAs in Appendix A of the Del Monte Forest LUP; and
- animals fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).
- Animal species of special concern to the California Department of Fish and Game (Remsen 1978 [birds]; Williams 1986 [mammals]; and Jennings and Hayes 1994 [amphibians and reptiles]).

- *Surrounding forest* - Forest that immediately adjoins a gap site, within a distance of up to 500 feet. A "surrounding forest" does not necessarily include the entirety of the forest within a given habitat conservation area.
- *Total cover* - Absolute cover.
- *Weeds* - Any invasive non-native invasive plant species identified in the Del Monte Forest as problematic including iceplant (*Carpobrotus edulis* and *C. chilense*), pampas grass (*Cortaderia jubata*), acacia (*Aciacia longifolia* and *A. verticilla*ta), gorse (*Ulex europaeus*), kikuyu grass (*Pennisetum clandestinum*), and French broom (*Genista monspessulana*), and any species listed on the latest version of the California Invasive Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California.

Chapter 2
Administrative Implementation

This chapter describes the administration procedures for resource management beginning with the drafting of this Master RMP through the implementation of resource management in the field, including the following:

- Funding Guarantee
- Roles and Responsibilities
- Preparation., Review, and Approval of the SSRMPs
- Preparation, Review, and Approval of the Annual Work Plan
- Preparation of Review of the Annual Monitoring Plan

2.1 Funding Guarantee

Upon approval of the SSRMPs, the Pebble Beach Company shall record a written guarantee to fulfill all required resource management actions contained in the SSRMPs against the real property comprising the new golf course site. This obligation shall include the Company's guarantee to provide adequate funding for the implementation of the SSRMPs including the actions to be conducted by the Pebble Beach Company[2], the third-party consultant, and Monterey County as part of the SSRMP implementation. Said guarantee shall provide a mechanism enabling the County to collect on a lien on the golf course property in the event that the Company fails to meet its funding obligations pursuant to the requirements contained herein.

2.2 Roles and Responsibilities

Monterey County

As the CEQA lead agency, Monterey County, specifically the Planning & Building Inspection Department (P&BI), shall be responsible for administrative oversight, including approval of the SSRMPs, the annual work plans and

[2] Including peer review of applicant reports when determined to be necessary by the County

monitoring reports.

Resource Management Team

An interagency team to be known as the Resource Management Team (RMT) will review this draft RMP, the SSRMPs, the annual work plans, and annual monitoring reports and provide input to Monterey County for consideration in approval of same. The RMT will include the California Department of Fish and Game (DFG), California Coastal Commission (CCC), the U.S. Fish and Wildlife Service (USFWS), the Fire Protection arm of the Pebble Beach Community Service District (PBSCD/CDF), the Monterey County Planning and Building Inspection Department (County), Del Monte Forest Foundation (DMFF), and other agencies, organizations, and scientific experts as deemed necessary by Monterey County.

The County is the approving agency with one exception: the PBCSD/CDF shall jointly be responsible for review and approval of plans for any proposed prescribed burns and vegetation management for fuel reduction.

Resource Management Plan Consultant

A third-party consultant will prepare the SSRMPS, conduct monitoring, and prepare annual monitoring reports under contract to Monterey County.

Pebble Beach Company

The Pebble Beach Company or its successors in ownership of the resource management areas defined in the Master RMP shall be responsible for funding and implementation of resource management in the field. The Pebble Beach Company shall prepare and submit annual work plans to the County and RMT for review and approval and shall implement the approved work plans for a minimum of 20 years.

2.3 Site-Specific Resource Management Plans

The Site-Specific RMPs will be prepared by a third-party consultant under contract to Monterey County utilizing the guidance in this Master RMP.

Individual SSRMPS shall be prepared for the following areas:

- **Development Areas**
  - Signal Hill Dune Conservation Area
  - Bristol Curve Conservation Area
  - "Forest" Golf Course Resource Management Areas

- New Equestrian Center Resource Management Areas
- Spanish Bay Driving Range Buffer and Conservation Area
- Preservation Area B/Spanish Bay Employee Housing Resource Management Area
- Residential Subdivision Resource Management Areas (combined SSRMP for all open space parcels and retained habitat with residential subdivisions in Areas F-2, F-3, I-2, K, and PQR)

- **Preservation Areas**
  - Huckleberry Hill Natural Area and contiguous areas (combined SSRMP for contiguous areas including HHNA/S.F.B. Morse Preserve, Preservation Area D, Preservation Area F-1, Preservation Area G, Preservation Area H, Conservation Area G-3, and the Corporation Yard Preservation Area)
  - Lower Seal Rock Creek Area (combined SSRMP for areas including Preservation Area I-1, Preservation Area J, Conservation Area K, and Preservation Area L)
  - Preservation Area PQR
  - Old Capitol Preservation Area
  - Aguajito Preservation Area

The following additional resource survey work and planning shall be completed prior to preparation of the SSRMPs:

- Yadon's piperia habitat characteristics study
- Yadon's piperia surveys of the Aguajito site and the New Equestrian Center site
- Selection of preservation areas at Aguajito to fulfill mitigation requirements for Yadon's piperia and Monterey pine forest
- Preparation of the Piperia Plan
- Pacific Grove clover surveys of Area MNOUV
- Initial weed control surveys of all resource management areas
- Assessment of coastal live oaks in management areas the symptoms of sudden oak death and the presence of the pathogen *Phytophthora ramorum*.
- Reconnaissance surveys of all resource management areas to confirm resource profiles and to identify control locations

Using the information in this Master RMP, additional information developed through required survey and planning work, the third-party consultant shall prepare SSRMPs for the areas identified above that identified the following for each management area:

- Resources to be Managed

- Management Goals
- Management Mandates
- Designated Management Subareas
- Specific Management Actions by Subarea, Including Timing
- Control/Reference Sites
- Monitoring Methods and Timing
- Site-Specific Success Criteria
- Contigency/Remedial Actions
- Adaptive Management Actions

The draft SSRMP shall be submitted to Monterey County, the RMT, and to the Pebble Beach Company for review. After considering the input of the RMT and the Pebble Beach Company, Monterey County shall direct the preparation of the final SSRMPs and approve the final SSRMPs. This approval must occur prior to the issuance of grading permits for the DMF/PDP.

2.3 Annual Work Plans

The Annual Work Plan (AWP) is the implementing mechanism for the SSRMPs. The AWP will identify the resource management activities to be performed within a specific management area for the upcoming period. The AWP shall be submitted annually for the first five years and every other year after the first five years. The requirement shall remain in force for a minimum duration of 20 years. The SSRMPs will establish the types and pacing of habitat management activities for implementation through the AWP. This pacing will be based upon the assumptions of project phasing that are made at project approval.

The draft AWP shall be submitted to the County, the RMT, and the third-party consultant on November 1 of each year (see Figure 1). County, RMT, and consultant comments are due on December 1. The Pebble Beach Company shall incorporate comment and County direction in the Final AWP to be submitted on January 1. The first Annual Work Plan shall be submitted for approval prior to issuance of grading permits.

The Pebble Beach Company will be responsible for all resource management efforts on the Pebble Beach Company-owned properties and on all areas identified above. The Pebble Beach Company shall be responsible for ensuring that the measures contained within the Annual Work Plan are completed by the stated completion dates.

The transfer of any of the parcels subject to the requirements of a SSRMP shall only be made if binding restrictions and/or guarantees are in place, which insure the SSRMP can be practically implemented and the funding for the work will continue for the minimum period or 20 years. The P&BI Director must review

and approve the restrictions and/or guarantees prior to any transfer.

At a minimum, the following elements shall be included in the Annual Work Plan:

- resource management actions for the upcoming period by habitat, species, and location including estimates of materials, staffing, permitting needs and cost estimates;
- a map on an aerial photograph identifying the location of all proposed activities;
- cumulative summary of previous annual requirements and actions;
- summary of effectiveness of previous actions (from the annual monitoring reports);
- progress report toward completion of SSRMP overall requirements and mitigation fulfillment;
- a preferred schedule with notations where changes may be appropriate due to climatic or other uncontrollable circumstances.

The draft annual work plan shall be reviewed by the RMT and the third-party consultant responsible for monitoring.

After consideration of these comments, Monterey County shall request the Pebble Beach Company to make any changes to the draft plan which need to be incorporated into the final AWP. The Pebble Beach Company shall incorporate these requests or show why such amendments or additions are infeasible or inappropriate. The final AWP shall be submitted to the County for final approval.

After approval of the final AWP, the Pebble Beach Company may request revisions or amendments in writing to Monterey County who shall have sole authority to authorize such revisions.

2.6 Annual Monitoring Reports

An annual monitoring report (AMR) shall be prepared by a third-party consultant approved by Monterey County that addresses resource management progress and helps to inform the annual work plan actions.

The AMR shall include:

- monitoring activity and results;
- the type, amount, and location of resource management that occurred and the quality and success of the management actions for the target habitat, species, or location based on the monitoring results;

- evaluation of site-specific consistency with the specific success criteria contained in the SSRMPs;
- evaluation of the overall successes and deficiencies in the resource management actions to date;
- recommendations to address resource management deficiencies or to enhance success to be incorporated into the upcoming Annual Work Plan; and
- recommendations for any proposed changes in monitoring activity, methods, and implementations for the upcoming period.

The draft AMR shall be submitted for County approval on September 1 (see Figure 1). The County shall provide comments to the Pebble Beach Company and the consultant by October 1 after consulting with the RMT. The Pebble Beach Company shall incorporate comments into the draft annual work plan for the following calendar year or show why amendments or additions were considered infeasible, or inappropriate.

After each fifth-year increment, the P&BI Director shall report to the Board of Supervisors regarding progress of the resource management program overall.

As described for the Annual Work Plan, the Pebble Beach Company shall be responsible for funding the portion of the annual monitoring report relevant to their properties.

Chapter 3
Habitat Management

Goals, actions, monitoring, and success criteria for overall habitat management are discussed below. This section is derived from management prescriptions identified in the DEIR, PRDEIR, FEIR and resource management plans submitted by the Pebble Beach Company.

3.1 Monterey Pine Forest Habitat

The following is based on the DEIR, PRDEIR, and FEIR for this project, the *Ecological Management Implementation Plan* (EMIP)(Monterey County and Ecosynthesis 1998), the DMF/ PDP *Ecological Management Plan* (Pebble Beach Company 2001), the DMF/PDP *Forest Management Plan* (Webster 2002), the DMF/PDP *Monterey Pine and Monterey Pine Forest Habitat Report* (Zander Associates 2002) and *the Management Plan for Del Monte Forest Open Space Property* (OSAC 1983).

Goals

- To provide for Monterey pine seedling regeneration and ecological succession within forest preserve areas.
- To provide for the maintenance and/or increase in populations of special-status species, and of populations of other plant and wildlife species that are dependent upon habitats of limited occurrence.
- To provide for the long-term maintenance of regional biodiversity in the Del Monte Forest area.
- To effectively reduce the incidence of invasive non-native species and preserve and enhance the habitat for endemic species.

Management policies for Category IV, open space forest habitat, outlined in the OSAC Management Plan (LSA 1983) include the following and apply to all preserve areas with forest habitat.

- Manage open forested areas to maintain the existing forest character, generally improve stand condition, and encourage a diverse understory.

- Where necessary and feasible to protect the forest cover, treat existing or potential disease and insect infestations.
- Perform necessary measures to assure human health and safety. These may include removal of hazardous trees and fuel management.
- Where applicable, generally apply the principles of urban forest management employed by the U.S. Forest Service and California Department of Forestry in similar urbanizing environments. This may include use of prescribed burns.
- Eliminate invading exotic species.

Actions

- **Restoration -** Restoration of the 15-acre area at the Proposed Golf Course shall consist of establishing native Monterey pines, associated coast live oak, and native understory vegetation (including Yadon's piperia) and maintenance of this area in perpetuity. Restoration and enhancement activity shall be conducted at the same time as development of the golf course and removal of native forest to allow salvage and transplantation of native forest material, such as native soil and plants (Source =MMRP).
- **Enhancement -** Enhance forest in portions of Area J and Old Capitol Site. The purpose of the enhancement shall be to restore intact pine forest overstory and understory to these areas where suitable and feasible. Enhancement shall not be conducted where both the forest overstory and understory are intact or where other native plant communities are dominant. Enhancement of these areas shall consist of removal of invasives and planting and maintenance of native understory vegetation (including Yadon's piperia where feasible) as well as planting of native Monterey pines if and where appropriate. Restoration and enhancement activity shall be conducted at the same time as development of the golf course and removal of native forest to allow salvage and transplantation of native forest material, such as native soil and plants (Source =MMRP).
- **Gap Phasing** - Gap creation to promote forest succession. Selective removal of trees, with an emphasis on trees which are diseased, moribund, unsafe, or otherwise damaged, in relatively small areas to expand existing openings in the forest with the goal of increasing light and space to encourage natural regeneration (Source = DMF/PDP EMP, Pebble Beach Company's DMF/PDP RMP Framework).
- **Understory Treatment** - Although prescribed burns are ecologically desirable for inducing forest succession, fire will not normally be the management tool of choice in most cases for public safety reasons. Mechanical and other methods can be used to control competing vegetation with created gaps and other areas to assist in the successful establishment of Monterey pine (Source = DMF/PDP EMP, Pebble Beach Company's DMF/PDPRMP Framework).
- **Seed Dispersal** - Pine seeds from site-specific collections can be scattered in

forest areas, especially in created gaps, that have been demonstrated to have low regeneration rates. Seeds should be typically sown in winter when conditions are optimal for germination and growth (Source = DMF/PDP EMP, Pebble Beach Company's DMF/PDPRMP Framework).

- **Replanting of trees** - Native trees shall be planted in restored and enhanced areas, landscaped areas, and to supplement natural regeneration. Monterey pine from on-site native seed stock shall be planted in restoration, enhancement, and landscapes areas and in other areas determined appropriate on a site--specific basis. Within the 20 -year monitoring period of SSRMPs, the Pebble Beach Company shall replant on a 1:1 ratio sufficient Monterey pines and coast live oaks to replace the trees removed as part of any portion of the Proposed Project, unless it can be demonstrated that such replanting cannot be accomplished within the Del Monte Forest without compromising the health of native forest areas. Gowen cypress, Bishop pine, willows and other native trees shall also be introduced into appropriate areas. Planting stock must be derived from healthy, mature local trees, preferably growing more than 500 feet from known non-local plantings. A qualified forester or biologist shall make selection of suitable trees for planting stock. Seed sources shall be stands that exhibit characteristics similar to those in the target planting areas. Treatment of understory, duff, and/or soil shall be carried out at replanting locations as necessary to maximize the vigor and long-term success of mitigation plantings ((Source = DMF/PDP EMP, Pebble Beach Company's DMF/PDPRMP Framework, MMRP).
- **Construction Tree removal** – Where tree removal is conducted as part of the construction effort, the relevant requirements in the MMRP and the DMF/PDP Forest Management Plan shall be implemented.
- **Other Tree Removal** – Where tree removal is conducted as part of the resource management effort (such as for gap phasing), the following shall be implemented (Source =MMRP):
  - Nesting raptor surveys shall be conducted prior to tree removal and 150' buffers during breeding season provided for occupied raptor nests.
  - Removal and disposal techniques for Monterey pine trees infected with pitch canker shall follow principles delineated by the Pitch Canker Task Force.
  - As part of the development of site-specific RMPs, assessments shall be conducted for the symptoms of sudden oak death and the presence of the pathogen *Phytophthora ramorum*. If infection is identified within development areas, the maximum retention of uninfected coast live oaks will be incorporated into the site-specific FMPs and RMPs. If any infected oaks are identified within areas of oak removal, removal and disposal activity and techniques shall incorporate current best management and control recommendations for pathogen control from the California Oak Mortality Task Force.
  - The relevant requirements in the DMF/PDP *Forest Management Plan* (Webster 2002) shall be implemented.
- **Replanting of Understory Vegetation** - Common herbs and shrubs should

readily colonize created gaps and other forest areas, and thus understory focus should be focused on special-status species. Where called for in this document or required as mitigation, planting shall be done by transplantation, planting of seeds, or planting of container-grown stock (Source = DMF/PDP EMP, Pebble Beach Company's DMF/PDP RMP Framework).

- **Soil salvage** - Within development areas, surface soils and duff layers supporting native vegetation, seedlings and soil microflora and fauna shall be salvaged prior to ground-disturbing activities and used in restoration and landscape areas where appropriate on a site-specific basis (Source = DMF/PDP EMP, Pebble Beach Company's DMF/PDPRMP Framework).

- **Retention of snags** - Large standing dead trees, snags, fallen logs, and brush piles shall be retained where feasible with proposed development and/or created where compatible with safety, aesthetic concerns and consist with disease management efforts (Source = DMF/PDP EMP, Pebble Beach Company's DMF/PDPRMP Framework).

- **Pitch Canker Management** - Monterey pine forest planting stock shall include pitch canker–resistant individuals from a diverse genetic background. Where container stock will be used for outplanting of trees, precautions shall be taken to ensure that container soils do not support the pathogens that cause sudden oak death or pine pitch canker (Source = MMRP).

- **Sudden Oak Death Management** - If infection is identified within resource management areas, current best management and control recommendations for pathogen control from the California Oak Mortality Task Force shall be implemented including prescriptions for forest users such as hikers and equestrians. Coast live oak planting stock selection shall follow current recommendations of the California Oak Mortality Task Force, if sudden oak death is identified in any oaks assessed within the Del Monte Forest . Where container stock will be used for outplanting of trees, precautions shall be taken to ensure that container soils do not support the pathogens that cause sudden oak death or pine pitch canker (Source = MMRP).

- **Erosion/Siltation Control** - Erosion and siltation control along trails, fire roads, pathways, and drainages shall be conducted in resource management areas including minor recontouring, creation and maintenance of water bars, revegetation, silt fencing, matting and/or other measures to stop slow, or redirect surface water flow where it may cause localized or downstream environmental degradation (Source = DMF/PDP EMP, Pebble Beach Company's DMF/PDPRMP Framework).

- **Non-Native Invasive Species Control** - Periodic weed control surveys shall be conducted by a qualified botanist based on the level and type of weed infestation present. Periodic weed control shall be conducted based on the level and type of weed infestation present. More frequent surveys and removal shall be required if necessary to control infestation from further spread and to meet the performance criteria developed in the SSRMP. Weed control shall be conducted under the oversight of a qualified biologist. Weed control methods including manual, mechanical, and appropriate chemical or other means of control as determined by the specific weed species, infestation level, and sensitivity of surrounding biological resources. Weed

control protocols for cleaning of clothing, shoes, and equipment to prevent inadvertent spread of weed seed shall be identified in the SSRMP. Education of workers conducting weed control shall be conducted to avoid inadvertent adverse effects to special-status species or sensitive vegetation areas. Specific goals for control of weeds (for example: complete eradication, maintenance of levels below X% relative cover, removal of all reproductive individuals) depending on the weed species and the surrounding biological resources shall be identified in the SSRMP (Source =MMRP).

- **Special-Status Species** - Resource management as specified in Chapter 4 of this document.

Monitoring

The monitoring element for Monterey pine forest shall be developed within the SSRMPs and implemented by the third party consultant who shall be familiar with the Monterey pine forest habitat and local biological resources. Overall guidelines for monitoring methodology and quantitative performance criteria are specified below:

- **Monterey Pine** - Within gap phasing areas, replanting areas, and enhancement areas, the following shall be conducted. Monitoring shall occur in October or November. Sample plots 10 feet wide, extending over the longest dimension of each monitored area. Within these plots, census all saplings older than one year by height classes (0-2 feet, 2-6 feet, and taller than 6 feet). Report census data and determine average number of individuals per acre (Source = EMIP).
- **Coast Live Oak** - Monitor all planted coast live oaks and any gap-phased areas where natural recruitment of oaks is noted to be profuse, in October or November. Record survivorship, size class, and vigor (Source = EMIP).
- **Monterey pine forest health** - Monitoring of preservation and management areas shall occur in May or June. Monitoring shall include at least one ten-foot-wide plot including the long axis of each created gap that is larger than 0.3 acres, and an equal number and total length of control plots in similar undisturbed forest habitat nearby. The ten most abundant species shall be recorded (qualitative visual judgment) in the shrub and herbaceous strata, noting which exceed 10% relative cover. Also, record pitch canker effects by approximate percentage of seedlings, saplings, and canopy trees affected by branch tip death and bole cankers (extruding pitch) (Source = EMIP).
- **Replanting** - The third-party consultant shall monitor replacement plantings annually during the first 5 years, and every 5 years thereafter up to 20 years as part of the overall monitoring plan (Source = Master RMP).
- **Weed Control** - Annual monitoring of weed control areas for effectiveness (Source = MMRP).
- **Revision of Monitoring Regime** - Quantitative monitoring criteria shall be refined periodically on the basis of additional data from natural habitat areas, changes in forest ecology related to pitch canker, or information derived

from this resource management effort (Source = EMIP).

Success Criteria

Success criteria for each managed area shall be articulated within the SSRMPs based on these overall criteria:

- **Forest Health** - Maintenance of overall ecological health of Monterey pine forest, including both understory and overstory relative to baseline at time of issuance of grading permits. Quantitative/qualitative criteria shall be identified in the SSRMP (Source = Master RMP) pursuant to findings made by the RMT. This determination shall be finalized within the first ten years of project approval.
- **Restoration (Area MNOUV)** - Restoration of Monterey pine forest understory and overstory within 15 acres at Area MNOUV similar to that present in 2004 in adjacent forest areas. Quantitative criteria to be identified in SSRMP (Source = MMRP)
- **Restoration (Old Capitol Site)** - Restoration of Monterey pine forest understory and overstory within non-forested and degraded forest areas at the Old Capitol site similar to that present in 2004 in healthy forest areas. Quantitative criteria to be identified in SSRMP (Source = MMRP).
- **Replanting** - Replanting of Monterey pine and coastal live oak to offset project losses on a 1:1 basis within 20 years, unless determined to be adverse to overall ecological health of managed forests (Source = MMRP).
- **Monterey pine** – Replanted area success criterion after 5 years is establishment and survival of at least 500 trees per acre. This criterion may be revised downward on the basis of adequate sampling of known early-successional areas; however, higher densities of 5-year-old trees are not deemed to be necessary to achieve the goals. At the time of outplanting of pitch canker resistant trees, a success criterion shall be established for each planting area either based on percent survivorship or total number of surviving trees per unit area, depending on planting circumstances (Source = EMIP)
- **Coastal live oak** - Five-year success criterion is survival and/or recruitment of a number of saplings equal to 50% of the number planted (Source = EMIP)
- **Weed Control** - Control of non-native invasive weeds such that these species do not substantially invade additional areas or hamper other management goals. Control of non-native invasive weeds within the site-specific success criteria. Quantitative criteria to be identified in SSRMP (Source = MMRP).
- **Special Status Species**. Success as defined in Chapter 4 of this document.

3.2 Monterey Pygmy Forest Habitat

The following is based on the DEIR, PRDEIR, and FEIR for this project, the *Ecological Management Implementation Plan* (EMIP)(Monterey County and Ecosynthesis 1998), the DMF/PDP *Ecological Management Plan* (Pebble Beach Company 2001), the DMF/PDP *Special Status Species Report* (Zander Associates 2001), the DMF/PDP *Forest Management Plan* (Webster 2002), the DMF/PDP *Monterey Pine and Monterey Pine Forest Habitat Report* (Zander Associates 2002) and *the Management Plan for Del Monte Forest Open Space Property* (OSAC 1983).

Goals

- Extant Monterey pygmy forest shall be protected from substantial disruption due to the proposed project development
- Where feasible, Monterey pygmy forest shall be restored within the Huckleberry Hill Natural Area.

Management policies for Category II, protected natural reserves, outlined in the OSAC Management Plan (LSA 1983) include the following and apply to all preserve areas with Monterey pygmy forest habitat.

- Foster long-term retention of the Gowen cypress/Bishop pine area diversity by enlarging the SFB Morse Botanical Reserve.

Actions

- **Restoration of former shooting range in HHNA** - Restoration of 1.6 acres of Gowen Cypress/Bishop pine forest at the former shooting range within HHNA shall be conducted. The first step will be elimination of existing non-native vegetation and native species that do not occur within the adjacent undisturbed native forest though slashing, uprooting or targeted herbicide application. Restoration may need to be phased in order to control non-native invasive species colonization. Gowen cypress and bishop pine seedlings grown from Huckleberry Hill stock shall be outplanted in the fall with the objective of having sapling densities of at least 400 per ace. Initial plating densities will be 10 to 30% higher than target density (exact percentage to be determined in SSRMP). Replacement plantings and contingent actions carried out in accordance with monitoring of success criteria. (Source = EMIP, DMF/PDP Special Status Species Report, MMRP).
- **Restoration of Unsurfaced Road Segments in HHNA** - Where unused roads are to be permanently closed within the Gowen cypress/Bishop pine forest, these areas shall also be restored by similar methods described for the former shooting range. Soils may need to be ripped to a depth of 6 - 12 inches for decompaction prior to planting. Erosion control measures shall also be applied where warranted to promote restoration and protect water quality (Source = MMRP, DMF/PDP Special Status Species Report).
- **Maintain Buffers** - Protect Gowen cypress and Bishop pine in the ESHA area on the north side from Area F-3 by monitoring and maintenance of a

physically marked buffer a minimum of 3 times the width of the tree canopy (Source = MMRP).

- **Erosion Control** - Implement an annual program of erosion control and trail maintenance along trails in the HHNA. Monitor trails and trail crossings of drainages during the wet season, temporarily close single-track trails and other HHNA trails to equestrian traffic when monitoring identifies that a substantial erosion potential exists, and conduct periodic maintenance as necessary to prevent soil erosion and sedimentation from subsequent storm events. The Pebble Beach Company shall develop a protocol for implementing monitoring, temporary trail closures, and periodic maintenance that will be incorporated into the HHNA RMP. Trail closures should be coordinated between the Pebble Beach Company, the Pebble Beach Equestrian Center, and the Pebble Beach Riding and Trail Association (Source =MMRP).

- **"Social" trail closure** - Permanently close and revegetate all informal "social" trails in the HHNA. Prohibit to the maximum extent feasible the potential use of designated HHNA trails by bicyclists and motorcyclists by placing signage at every trailhead stating the prohibition of use by bicycles and motorcycles and by placing physical barriers that would be difficult for bicyclists and motorcyclists to cross easily, but would allow pedestrian and equestrian crossing. Examples of such a barrier would be wooden barriers 18 to 20" high at trailheads and at entrances to single-track trails. (Source = MMRP).

- **Environmental Education** - Incorporate environmental education about the sensitive resources of the HHNA to all trail users and attendees at special events including measures that individuals can implement to lower their impact such as not hitching horses to trees, crossing drainages at marked crossings, and staying on designated trails (Source =MMRP).

- **Weed Control** - Control potential spread of non-native invasive plant species from the New Equestrian Center into the surrounding HHNA by use of hay bins/troughs, watering, and routine cleanup of stray hay. Conduct at least annual (and more frequent if necessary) weed control surveys of the HHNA (both along trails and off trails) and use manual, mechanical, and appropriate chemical or other means of control where infestation of weeds is identified. Annual weed monitoring should include targeted monitoring in areas of heavy horse use within the Monterey pygmy forest to examine if trail use and horse manure may be resulting in substantial spread of non-native invasive plant species or substantial change in native vegetation composition along trails. Weed control, more frequent manure cleanup, or other measures shall be implemented, as necessary to avoid substantial change in native Monterey pygmy forest vegetation (Source =MMRP).

- **Weed-Free Feed** - Once the following conditions are met, require use of certified weed-free feed for all horses stabled at the New Equestrian Center: a certification process is adopted by the California Department of Food and Agriculture for weed-free feed; and a certified weed-free feed supplier is located within 50 miles of the Del Monte Forest. Following implementation of weed-free feed requirements at the New Equestrian Center, encourage all

guests to feed their horses weed-free feed for two days prior to bringing horses to the Del Monte Forest for boarding or equestrian events, and provide information to all horse owners attending special events about suppliers of weed-free feed (Source = MMRP).

- **Trail Closure** - Restrict equestrian use of the two single-track trail segments that parallel drainages in the HHNA - the Rudd Crawford Trail (b/w Congress and Fire Rd. #6) and the Green Trail/Red Trail between a point 100 yards east of Congress Rd. and Fire Rd #6. Place horse barriers/gates and fencing at entry to these single-track trails segments. Post signage directing equestrian users to designated trails including trailhead oversize maps. Redesignate loop trail markings as necessary (Source =MMRP).

Monitoring

- **Restoration Area** - Monitor the Gowen cypress restoration area in HHNA for a minimum of 5 years or until the success criterion is met. Monitoring shall be conducted in October or November. Monitoring shall be conducted in at least 20% of the total restored habitat area, with proportionate representation of restored roads and the skeet-shooting area. Within the monitored area, census saplings by the same size classes as for Monterey pine gap-phased areas (Source =EMIP, MMRP).
- **Residential buffers** - Monitor during adjacent residential construction and annual monitoring of landscaping encroachment (Source = Master RMP).
- **Trail closures/controls** - Periodic monitoring of closed social trails and other HHNA trails to identify compliance with barriers to equestrians, mountain bicycles, and motorized cycle use (Source = MMRP).
- **Erosion** - Periodic wet season monitoring in HHNA of problem areas and of erosion control measure locations (Source = MMRP).
- **Weed control** - Annual monitoring of weed control areas for effectiveness (quantitative criteria to be identified in SSRMP) (Source = MMRP).

Success Criteria

- **Restoration Area** - The 5-year success criterion is the survival of 400 saplings per acre, extrapolated from the monitored area (Source = EMIP, MMRP).
- **Residential buffers** - No encroachment within buffer area (Source = MMRP).
- **Erosion** - Control of sedimentation into Sawmill Gulch and maintenance of trail integrity (Source =Master RMP).
- **Trail closures/controls** - Natural recolonization of closed social trails. Reduced illegal motorcycle and mountain bike activity. No equestrian use of closed single-track trails (Source = MMRP).

- **Weed control** - Control of non-native invasive weeds such that these species do not invade additional areas or hamper other qualitative management goals. Control of non-native invasive weeds within the site-specific success criteria (quantitative criteria to be identified in SSRMP) (Source = MMRP).

3.3 Coastal Dune ESHA Habitat

Coastal Dune habitat is found within two resource management areas: Signal Hill Conservation Area and the westernmost portion of Area L.

A comprehensive suite of resource management measures have been developed for the Signal Hill dunes. These measures are site-specific and thus are described in Chapter 5.

Regarding Area L, the only applicable resource management measure is control of non-native invasive species, which is described in Chapter 5.

3.4 Wetland and Riparian Habitat

The following is derived from the DEIR, PRDEIR, FEIR, *the Ecological Management Implementation Plan* (EMIP, Monterey County and Ecosynthesis 1998), the DMF/PDP *Best Management Practices Plan* (Questa 2003) the DMF/PDP *Wetlands Report* (Wetlands Research Associates 2001), the DMF/PDP *Watershed Hydrology Phase II Report* (Balance Hydrologics, 2003), the Pebble Beach Company's DMF/PDP pre-construction notice (PCN) for restoration work (Wetland Research Associates 2003), and *the Management Plan for Del Monte Forest Open Space Property* (OSAC 1983).

Goals

The overall management goals related to wetlands within open space recreation areas (Proposed Golf Course, Spanish Bay Driving Range, New Equestrian Center) are:

- avoid all wetlands through re-design of the proposed golf course, driving range, and equestrian facilities such that no fill will occur in California Coastal Act designated wetlands;
- maintain and, where possible, enhance existing water quality received by wetlands;
- protect and, where possible, enhance existing wetland functions;
- enhance wetlands through removal of non-native, invasive plant species; and
- maintain public access into recreational space, but prevent human intrusion into sensitive areas.

The overall management goals related to wetlands and riparian areas in conservation and preservation areas are:

- reduce degradation caused by erosion and siltation within the watershed;
- protect native plant communities through an active program of invasive species control within the wetlands and riparian areas;
- provide habitat for sensitive species, if appropriate and known to occur within the area; and
- create additional habitat where there is degradation.

Management policies for Category VIII, riparian and wetland habitat outlined in the *OSAC Management Plan* (OSAC 1983) include the following and apply to areas with wetland and riparian habitat:

- manage for protection of hydrologic cycle, avoidance of sedimentation, and maintenance of efficient flows, and to protect from urban runoff;
- manage for continuing maintenance of seasonal and perennial pools, seepage, and marshy areas along drainage courses, unless the present clear public health hazards, and edge areas between habitats;
- maintain 100' setback from streamcourse banks to any permanent structure; and
- construction activity requiring riparian vegetation alteration or filling shall be minimized, and shall be accompanied by appropriate mitigation measures.

Actions

Wetlands in Open Space Recreation Areas

Avoid Wetland Fill

No permanent fill of Corps or California Coastal Act jurisdictional wetlands shall occur as part of construction or operation of the project. Incidental fallback may occur as part of restoration activity within wetland areas where necessary to remove existing fill, such as unused trails or roads, or to promote improved hydrologic conditions (Source = MMRP; DMF/PDP PCN for wetland restoration).

Maintain Wetland Hydrologic Balances

The quantity and timing of stormwater flows will be retained to each of the wetland areas by proper design and operation of the proposed golf course, the Spanish Bay Driving Range, and the New Equestrian Center and their respective storm drainage systems including the following actions:

- installation of interceptor drains for areas causing additional runoff to wetlands, such as irrigation water for the Proposed Golf Course;

- installation of surface and/or subsurface detention basins at the Proposed Golf Course and New Equestrian Center and two subsurface retention facilities for the Spanish Bay Driving Range to limit adverse changes in runoff to wetlands;
- design of stormwater drainage systems to include detention and/or retention facilities to limit peak runoff rates so that they do not exceed pre-project conditions;
- maintenance of the hydrologic continuity of each wetland to its watershed;
- avoidance of change in timing or quantity of stormwater inflow to the wetland;
- prevention of sub-surface trench water capture through baffle design.
- use of ditch plugs near wetlands to support/maintain shallow groundwater flow to wetlands; and
- maintenance of buffers around wetlands to protect existing hydrologic connection with immediately adjacent groundwater infiltration and seepage patterns.

The Pebble Beach Company shall prepare an estimated post-construction water balance for all wetlands affected by the Proposed Project that incorporates all Proposed Project alterations (grading, slope, vegetation cover, impervious surfaces, drainage infrastructure, etc.). Site-specific prescriptions for each wetland will be identified in final plans as necessary to maintain existing wetland hydrologic function, and the water balance will demonstrate the effectiveness of these prescriptions. Both the water balance and the final site-specific BMPs shall be submitted to the Planning and Building Inspection Department for inclusion in the Draft SSRMPs. The Director of Planning, subject to review by a third party consulting hydrologist funded by the Pebble Beach Company, shall consider consultant findings, and approve the water balance and site-specific BMPs prior to finalization of the SSRMPs and prior to the issuance of any project grading or building permits on a project-by-project basis (Source = DMF/PDP Watershed Hydrology Phase II report, DMF/PDP BMP Plan, DMF/PDP Wetlands Report, MMRP).

Maintain and Enhance Water Quality

All untreated water sources with high potential for pesticide/herbicide content will be diverted into an off-site drainage system avoiding wetlands entirely. Unfiltered surface runoff from irrigation will also be diverted entirely, as will treated runoff during summer months.

However, irrigation or other runoff that drains to a water quality enhancement pond, or through golf tees, fairways, greens, and/or other turfed areas (such as grassy swales) into the subsurface sand filter and drainage system will be of suitable quality and may be used to maintain wetland hydrology during the normal wet season.

Natural watershed seasonal drainage water, which currently is the primary water

source of many of the wetlands in recreational parcels, will be maintained with certain restrictions. Water from undeveloped off-site sources will not require treatment and may be directed to existing wetlands without interruption. However, where surface drainage flows across large paved areas, such as parking lots, it will first be routed to water quality enhancement ponds or detention basins. Detention slows the flow of water downslope, reducing the risk of erosion in downstream wetlands. Detaining water also allows particulates to settle out and affords time for other pollutants to undergo natural degradation.

Media infiltration such as catch basin filter inserts may also be used to intercept runoff from parking areas and roads. Where space permits, vegetated swales will be utilized to filter out sediments and stormwater pollutants as they remove a higher percentage of contaminants than filter inserts. Swales may be incorporated into the median strip landscaping; or may be constructed adjacent to the pavement. Bi-monthly sweeping of paved surfaces during the dry season will be conducted to decrease the build-up of pollutants. Sweeping will increase frequency to once per week during the month immediately prior to the expected rainy season to remove the majority of soluble pollutants before the first seasonal storm.

Where surface drainage crosses small paved areas, such as roads, it will either be culverted under the road to prevent absorption and transportation of hydrocarbon contaminants into the drainage system, or if flow cannot be re-directed, it will not flow across paved surfaces directly into any wetland or directly into a subsurface pipe with an outfall into a wetland, but instead will be sent into a vegetated drainage ditch, grassy swale, or other biofiltering system (such as the buffer zone) prior to entering wetlands. In all cases, water piped to wetlands will be released through diffusers within the buffer zone to slow and spread the flow. In addition to improving water quality, the use of diffusers will decrease erosion to downslope wetlands.

Additional precautions will be needed to deal with uncommonly large precipitation events. Underground detention facilities have been designed to capture runoff from the clubhouse and golf cottages during a 100-year storm event. These structures will reduce any storm-related increases in peak runoff or peak flow, and will effectively reduce erosion potential and sedimentation in the lower watershed, during both extreme and average storm events (Source = Watershed Hydrology Phase II report, BMP Plan, Wetlands Report, MMRP.)

Further detail on water quality management can be found in Section 3.5.

Protect and Enhance Wetland Functions

- **Protection of Wetland Functions in Open Space Recreation Areas** - Protection measures will include the maintenance of existing water flows and the provision of the proposed buffers around each of the wetlands. The most important function of the buffer will be the maintenance of sufficient area for groundwater hydrology to be retained as one of the primary mechanisms supporting the wetland areas. In addition, the buffers, as well as other features to be designed into the proposed golf course, driving range, and

equestrian center, should maintain existing nutrient balance to the wetlands by filtering out of the water excess nutrients that can cause eutrophic (nutrient loading) wetland conditions (Source = DMF/PDP Wetlands Plan).

- **Enhancement of Wetland Functions in Open Space Recreation Areas**- Enhancement measures will focus on improving existing water quality, increasing habitat connectivity, decreasing disturbance, removing non-native species, and planting additional species to increase habitat diversity. To improve water quality, vegetated swales, vegetated drainage ditches, water quality enhancement ponds, and the buffer zone will be utilized as biofilters to remove pollutants from stormwater runoff that now flows directly into many wetlands, or stormwater will be diverted away from wetlands. All surface runoff directly from golf course irrigation will either be routed off-site or captured and treated to prevent nutrient loading in wetlands. In many locations, existing roads and trails that bisect wetland complexes will be removed, restoring wetland connectivity and decreasing habitat disturbance. An active invasive plant control program will be undertaken. In addition, planting of native species will be completed, especially in the man-made wetlands where species diversity is low (Source = DMF/PDP Wetlands Plan).

Invasive Species Control

An active management program will be implemented to eradicate, either by mechanical methods or through use of herbicides, aggressive plant species such as cape ivy, broom, mattress vine, acacia, pampas grass and calla lily. This program will be accompanied by revegetation, and restoration if needed, within the affected areas to assure that long-term restoration of a balanced native community is being achieved (Source = DMF/PDP Wetlands Plan). This effort will be part of the overall invasive species control program described in Section 3.1 for Monterey pine forest.

Public Access Control

While public enjoyment of Open Space Recreational areas will be promoted human access must be limited in sensitive habitat areas such as wetlands. Existing trails through or in close proximity to wetlands will be elevated onto boardwalks to prevent trampling of wetland vegetation and decrease erosion. In other areas, fencing will be used to prevent entrance into adjacent wetland habitats. Some trails or other public areas may periodically be closed to protect seasonal breeding habitat for wildlife, or to prevent excess erosion during the rainy season when potential for damage is greatest. Some poorly-designed or badly-damaged trails may be slated for removal to allow the habitat to recover (Source = DMF/PDP Wetlands Plan).

The golf maintenance trail and all pedestrian walkways at the Proposed Golf Course shall provide for clear-span bridging, boardwalks or the trails/walkways shall be rerouted to avoid wetlands. Boardwalks shall only be used when the wetland crossing is presently not vegetated; hydrologic connections shall be maintained and improved where feasible. A portion of the Lower Sawmill area wetland is considered an ESHA and shall be provided with a 100-foot buffer

from all proposed activities. The seasonal wetland portion of the Lower Sawmill wetland shall be provided with a 25-foot buffer. A permanent barrier, such as a cable or split-rail fence, shall be placed around the resultant Lower Sawmill wetland buffer to prevent access. The area of hydrophytic vegetation in the drainage north of the New Equestrian Center should be avoided by use of a clear-span bridge (Source = MMRP).

Wetlands and Riparian Management in Preservation and Conservation Areas

A Stream and Wetland Restoration Plan (SWRP) will be developed prior to finalization of the SSRMPs including erosion and siltation control, invasive species control, species habitat enhancement and wetland creation proposals as described below (Source = DMF/PDP Wetlands Plan).

Erosion and Siltation Control

A program of preventive maintenance and rehabilitation will be undertaken to repair and, if needed, to restore drainages and wetlands within the preserved areas. A professional soil erosion specialist and stream restorationist will assess each drainage. Areas of excessive erosion will be mapped and an analysis of the causes of that erosion will be completed.

Based on this information, a stream management and restoration plan will be developed for each drainage. The plan will identify both watershed management issues and specific restoration actions to be taken on each drainage. Some of the possible actions include fire road and culvert re-design, removal or elevation of existing trails on boardwalks through or adjacent to wetlands, placement of check dams using natural materials (logs, woody debris, and native rock), bank stabilization using biotechnical measures such as willow plantings and natural fiber matting, and realignment of stream beds to provide meanders and other natural energy dissipating features.

Where erosion has affected downstream drainages and wetlands, excavation and removal of excess sediment may be necessary. This will only be done following implementation of erosion control measures in the watershed. A wetland restoration specialist will identify those wetland areas that have been adversely affected by erosion, evaluate possible restoration alternatives and develop an overall restoration plan (Source = DMF/PDP Wetlands Plan).

Invasive Species Control

An active management program will be implemented to eradicate, either by mechanical methods or through use of herbicides, aggressive plant species such as cape ivy, broom, mattress vine, acacia, pampas grass and calla lily. This program will be accompanied by revegetation, and restoration if needed, within the affected areas to assure that long-term restoration of a balanced native community is being achieved (Source = DMF/PDP Wetlands Plan). This effort

will be part of the overall invasive species control program described in Section 3.1 for Monterey pine forest.

Provide Habitat for Sensitive Species

In conjunction with the stream and wetland management and restoration plan for erosion control, specific habitat measures will be included to promote the use by sensitive species such as amphibians and wetland dependent birds and mammals. Densely vegetated banks, pools, and creation of freshwater marsh habitats will be considered as possible measures to be included within site specific designs (Source = DMF/PDP Wetlands Plan).

Creation of Habitat

There are several locations within conservation and preservation areas where drainages pass under roads that provide opportunities for wetland creation, such as wetland PQR-4 in Area PQR. The stream and wetland restoration plan will identify the opportunities in such areas and the actions necessary to create wetland habitat including the removal of fill materials, creation of wetland habitat areas and establishment of silt catch basins upstream of restored wetland areas (Source = DMF/PDP Wetlands Plan).

Monitoring

Wetlands in Open Space Recreation Areas

- **Wetland Fill Avoidance** - Wetlands shall be monitored during and post-construction through at the proposed golf course, driving range, and equestrian facilities to verify that no permanent fill will occur in California Coastal Act designated and Corps jurisdictional wetlands. The existing delineation will be the baseline upon which changes are to be measured and mapped. Post-construction maps showing post-restoration wetland limits shall be developed and incorporated into the SSRMPs (Source = DMF/PDP PCN, MMRP).
- **Wetland Hydrology** - Post-project hydrology and water balance conditions at project site wetlands shall be monitored by the third-party consultant and reported in the AMR. The objective of monitoring is to assess if project construction/operation has resulted in significant changes to wetland hydrology. Monitoring shall include assessment of water balance conditions for comparison with the analysis presented in Balance Hydrologics (2003) for existing conditions. Monitoring shall continue for at least 7 years, or include observations from a wet year (~where annual precipitation is +1 standard deviation [SD] of mean annual precipitation [~19.6”]), and a dry year (-1 SD of mean annual precipitation). Reporting of annual monitoring conditions shall include recommendations for adaptive management actions if steps are needed to support/sustain wetland hydrologic functioning (Source = MMRP).

- **Water Quality Management** - See Section 3.5.
- **Wetland Function Protection and Enhancement** - Monitoring in the proposed golf course restored wetlands will focus on as-built conditions, hydrology, and establishment of native vegetation. Immediately following construction, restored wetland swales will be assessed to determine if proper grade-matching between adjacent wetlands has been achieved. Vegetation monitoring will be conducted until performance criteria are met for three consecutive years. Restored wetlands will be determined successful if performance criteria are met for three consecutive years. The monitoring program to evaluate the success of restored wetland swales and created open water ponds are included in the *Pre-Construction Notification for Nationwide Permit 27* from the Army Corps of Engineers (WRA 2003).
- **Invasive Species Vegetation Cover** - Wetlands shall be periodically monitored as part of the overall invasive species control program to be articulated for each geographic area in the SSRMP (Source = MMRP).
- **Public Access Control** - Wetlands adjacent to recreation areas and trails shall be periodically monitored to identify possible effects of encroachment by golfer, equestrian, and pedestrian access and the potential for additional temporary or permanent access controls. Deficiencies in controls shall be identify in the AMR for remedy in the subsequent AWP (Source = MMRP).

Wetlands in Preservation and Conservation Areas

- **Erosion and Siltation Control** - Initial identification of erosion and siltation problem areas shall be done during development of the stream and riparian restoration plan. Wetlands and riparian areas shall be monitored annually for three years after the implementation of any erosion and siltation controls to evaluate their effectiveness and identify the need for potential remedial action (Source =DMF/PDP Wetlands Plan).
- **Invasive Species** - Wetlands and riparian areas shall be periodically monitored as part of the overall invasive species control program to be articulated for each geographic area in the SSRMP (Source = MMRP).
- **Habitat for Sensitive Species** - Where habitat is enhanced for sensitive species within wetland and riparian areas, these areas shall be monitored annually for three years after the enhancement to evaluate effectiveness and to identify the need for potential remedial action (Source = Master RMP).
- **Habitat Creation** - Monitoring of the created California red-legged frog breeding ponds in Seal Rock Creek shall focus on hydrology and establishment of native vegetation. Monitoring shall be done until success criteria are met for three consecutive years AMP (Source = DMF/PDP PCN for restoration work). If other habitat is created similar monitoring efforts shall be identified in the SSRMP, AWP, or AMR.

Success Criteria

Wetlands in Open Space Recreation Areas

- **Wetland Avoidance**
  - No permanent fill of wetland areas after construction
- **Wetland Hydrology**
  - Groundwater saturation within the upper six inches to be similar to reference wetlands upstream of the restoration areas.
  - Post-construction water balance to be similar to pre-construction water balance including flow, seasonality, and hydroperiod. Specific monitoring criteria to be identified in the SSRMPs.
- **Water Quality** - See Section 3.5
- **Wetland Function Protection and Enhancement**
  - Greater than 80 percent overall plant cover in both wetland and buffer areas.
  - Greater than 50 percent cover by native wetland plant species within wetlands areas.
  - Less than 10 percent by invasive non-native plant species.
  - Criteria to be met within 3 years of restoration.
- **Invasive Species/Vegetation Cover**
  - Less than 10 percent by invasive non-native plant species
- **Public Access Control**
  - No substantial degradation from recreational access in wetland areas as measured by the criteria above (Source = DMF/PDP PCN, DMF/PDP Wetlands Plan).

Wetlands in Preservation and Conservation Areas

- **Erosion/Siltation Control** - Specific performance criteria shall be developed in the Stream and Wetland Restoration Plan and incorporated into the SSRMPs
- **Invasive Species Control**- Less than 10 percent by invasive non-native plant.
- **Sensitive Species Habitat** - No specific enhancement proposals have yet been identified. Success criteria for any proposed habitat enhancements will need to be developed during preparation of the SWRP and the SSRMPs.
- **Habitat Creation** - The CRLF breeding ponds in Seal Rock Creek shall meet the following criteria for three consecutive years:
  - Pond holds water through the month of July

- Greater than 80 percent cover by native emergent wetland vegetation along 50 percent of the pond margins
- Zero percent plant cover in pond interior
- Greater than 80 percent overall plant cover in buffer areas
- Less than 10 percent by invasive non-native plant species.
- Criteria to be met within 3 years of restoration. (Source = DMF/PDP PCN, DMF/PDP Wetlands Plan).

Contingency/Remedial Actions

Contingency actions in the event that monitoring documents failure to meet the success criteria include:

- **Hydrology** - Drainage system modifications and regrading.
- **Wetland Protection and Function** - Supplemental planting and/or regrading.
- **Habitat Restoration/Creation** - Contingency actions are supplemental planting, redesign, and/or supplemental water and/or regrading **(**Source = DMF/PDP PCN, MMRP).

3.5 Water Quality Management

The following is derived from the DEIR, PRDEIR, FEIR, *the DMF/PDP Best Management Practices Plan* (Questa 2003), and the DMF/PDP *Watershed Hydrology Phase II Results Report* (Balance Hydrologics 2003).

Goals

- Maintenance of water quality in waterbodies downstream of the Proposed Golf Course, the Spanish Bay Driving Range, and the New Equestrian Center.
- Avoidance of excessive irrigation of non-target areas that would alter vegetation patterns, promote growth of non-native species, or otherwise change habitat conditions for native plant and wildlife species.
- Minimization of indirect effects of pesticide and fertilizer use and reclaimed water use on adjacent and downstream natural areas and special-status plant and wildlife species.

Actions

Drainage and Runoff Control

A Runoff Management Plan is described in the DMF/PDP BMP plan (Questa 2003) to limit peak runoff, sediment discharges, and transport of nutrients and other pollutants off-site into downstream receiving environments.

The BMPs that relate to site drainage include the following:

- Vegetated filter strips and bioswales (natural vegetated buffers, filter strips, bioswales);
- Detention/Retention ("dry" detention basins, "wet" detention basins, underground retention and retention-infiltration facilities);
- Subdrains (underdrains, greens' drainage, curtain drains); and
- Other management practices: trash areas and loading docks, roof drains, raised inlets, runoff control and dispersion, oil and grease/sediment traps, equipment washdown/recycle system, litter control and street sweeping.

Animal waste control measures at the New Equestrian Center. The measures in the DMF/PDP BMP plan shall be implemented along with the additional measures for control of horse waste during special events:

- Bedding, such as shavings and/or straw, shall be placed in all temporary stable facilities, including sleeping and washing areas, during special events. Manure and bedding waste shall be collected from temporary stable facilities within one day of the end of the special event and transported to an approved disposal facility or for use off-site at organic farms as fertilizer.
- Solid manure waste in special event outdoor use areas shall be removed daily. Manure may be stored under cover at a dedicated bunker area and transported at the end of the special event to an approved disposal facility.
- Temporary stable facilities shall not be located within 100-feet of the wetland in the Lower Sawmill.
- The detention basin to be installed near the wetland and the grass filter strip area (per the DMF/PDPBMP plan) shall also be designed to contain runoff from temporary stables and temporary special event use areas. During special events, the detention basin shall operate as a containment basin and shall not drain into the wetland and Sawmill Gulch. Instead, the detention basin shall be cleaned out after the end of each special event and the accumulated material transported to an approved disposal facility or for use off-site at organic farms as fertilizer. Only after the basin is cleaned out, shall drainage again be routed into the wetland and Sawmill Gulch (Source = MMRP).

Irrigation and Turf Management

The following summarizes key management practices from the BMP plan related

to the golf course turfgrass and irrigation system:

- Turfgrass selection is critical for design, maintenance, and environmental management. Specific grassing recommendations for tees and fairways, putting greens, primary roughs, and secondary and natural areas are outlined in the DMF/PDP BMP Plan.
- Irrigation system design and equipment to be used are specifically outlined in the DMF/PDP BMP Plan. The BMPs require avoidance of inadvertent sprinkler drift and minimization of surface runoff.
- Salt accumulation will be managed by incorporating soil amendments into the final topsoil mix, flushing, and pH adjustment.
- Reclaimed water use will be monitored closely to ensure compliance with California Administrative Code, Title 22 Water Recycling Criteria.

Fertilizers and Nutrient Management

A management plan for golf course nutrient management or turfgrass fertility will ensure development and maintenance of a vigorous healthy turf that can withstand environmental stress, while minimizing adverse impacts from chemical use. Maintenance of a healthy turf through appropriate fertilization, irrigation, and mowing also maximizes the natural genetic pest resistance potential of the plant cultivars.

General Management Principles include:

- Realistic application rates based on soil and plant tissue testing.
- Application in consideration of total load of readily available nitrogen applied with reclaimed water.
- Use of slow release forms of granular fertilizer (particularly nitrogen).
- Time applications to coincide with period of plant growth and update and avoid applications immediately prior to rainy periods.
- Manage irrigation applications for high efficiency, minimizing runoff and deep percolation losses by use of computer-controlled irrigation and an on-site weather station.
- Maintain and calibrate application equipment and apply uniformly over areas of similar nutritional needs
- As part of the golf course design incorporate vegetated filter strips, bioswales, detention basins and natural buffer areas to promote, capture and retain of nutrients within golf course runoff.

The BMP plan further outlines guidance for soil and plant tissue testing, recycled water nitrogen content, fertilizer selection, cultivation practices, plant species selection, propagation and plant establishment, and vegetated buffers.

Integrated Pest Management

Integrated Pest Management (IPM) Practices will be used to minimize the use of chemical means of pest control wherever feasible or practical (Source = BMP Plan).

Pest management will be conducted in consideration of the following:

- environmental considerations -
  - alternative physical measures such as berms and buffers;
  - habitat interaction with sensitive areas such as dunes, wetlands, rare plants, and other native vegetation areas; and
  - vegetated buffers.
- chemical vegetation control principles -
  - timing of application;
  - selection of pesticides;
  - application rates; and
  - application equipment and techniques

The DMF/PDP BMP plan identifies a recommended list of pesticides for use at the proposed golf course.

Prior to final pesticide selection, a risk analysis will be completed and included in the pesticide use report submitted to the Agricultural Commissioner as part of the reporting requirements for pesticide use. This risk analysis shall be completed prior to the drafting of the SSRMPs so that the RMT, the County, and the third-party consultant can evaluate it, and incorporated into the SSRMPs. The risk analysis will assess the following

- Human Health Risk - A screening analysis relative to groundwater compared to lifetime drinking water Health Advisory levels (HALs), since groundwater is neither a current nor an expected future drinking water source.
- Fish, Amphibian, and Aquatic Invertebrate Risk - Estimate of worst-case pesticide levels in groundwater (which could affect wetlands) and surface water and comparison to EPA LC50 aquatic toxicity levels and other relevant levels for species found in subject drainages and wetlands.

The DMF/PDP BMP plan also presents guidelines for use and handling of pesticides for the following areas:

- general use and safety procedures;
- mixing and formulation;
- application;
- equipment repair;

- disposal of empty chemical containers;
- pesticide spill and response plan; and
- washdown procedures at the Golf Course Maintenance Facility; and
- notification and reporting of pesticide use.

Monitoring

- **Hydrology -** Downstream wetland hydrology shall be monitored as described above in Section 3.4.
- **Water Quality -** Water quality conditions of wetlands and streams downstream of the Proposed Golf Course, the Spanish Bay Driving Range, and the New Equestrian Center shall be monitored annually for the first five years of operation of the new facilities, and then every two years. Specific monitoring methods, analytes, and timing shall be determined in the SSRMPs in combination with other monitoring required in this document, in mitigation, or permit conditions. At a minimum, water samples shall be collected once in the wet season and once in the dry season at the primary downstream receiving water body from each of the three development areas for the following minimum set of parameters:
  - pH
  - Oil and Grease
  - Total Organic Carbon
  - Total Dissolved Solids
  - Total Suspended solids
  - Ammonia as Nitrogen
  - Nitrates as NO_3
  - Surfactants (MBAS - methylene blue active substances)
  - Total phosphorus (as phosphate)
  - All pesticides and herbicides used
  - Fecal coliform (downstream of the New Equestrian Center only)

  Additional sampling locations (such as different wetlands at the Proposed Golf Course) and analytes may be added during preparation of the SSRMPs or during the course of resource management as needed to monitor water quality effects of the project (Source = Master RMP).

- **Water quality in HHNA** - The Pebble Beach Company shall monitor the water quality of HHNA drainages and wetlands in proximity to areas of increased equestrian trail use. In order to evaluate project-related changes, PBC shall conduct monitoring prior to opening of the New Equestrian Center to establish a water quality baseline. Monitoring shall be conducted three times annually for nutrients related to animal waste (nitrogen and ammonia

in particular), to include the fall, after the first major storm, and in the spring. Monitoring results shall be submitted to Monterey County. If results indicate that a substantial increase in nutrients is resulting from increased equestrian trail use, the Pebble Beach Company shall identify adaptive management strategies to protect water quality. These measures may include periodic cleanup of animal waste near drainages, rerouting trail drainage away from streams and wetlands, reconfiguring trails to avoid intensive use in problem areas, manure bags, and/or other measures. Monitoring shall be conducted every year for 5 years and then every 5 years for a minimum of 15 years and until analytic results demonstrate that adaptive management measures have effectively reduced nutrient loading to background levels (Source =MMRP).

Success Criteria

- **Hydrology -** Downstream wetland hydrology criteria are as described in Section 3.4.
- **Water Quality -** Downstream water quality shall be evaluated in terms of how it meets water quality criteria and objectives found in the following:
  - California Ocean Plan (CSWRCB 2001);
  - Central Coast RWQCB Basin Plan; and
  - EPA Recommended Water Quality Criteria (WQC) (EPA 1999; EPA 1986);
  - Where repeated sampling indicates that the criteria are not being met, remedial action includes modification of irrigation, fertilizer and pesticide use and procedures; modification of drainage facilities; and/or change of irrigation, fertilizer, and pesticide technology and type (Source = Master RMP).

Chapter 4
Special-Status Species Management

This chapter identifies the resource management prescriptions identified for certain special-status species to be implemented within the habitat management element.

4.1 Special-Status Plant Species

Gowen Cypress

The goals, actions, monitoring, and success criteria for resource management related to Gowen Cypress are included in the description of resource management for Monterey pygmy forest in Section 3.2 above

Yadon's Piperia

The source for this section in its entirely is the PRDEIR and FEIR, as reflected within the MMRP.

Goals

- No net loss of occupied habitat of Yadon's piperia due to Proposed Project.
- Expansion of occupied habitat for Yadon's piperia through transplantation and enhancement to offset Proposed Project losses.
- Sustain existing occupied habitat for Yadon's piperia in resource management areas.

Piperia Plan (Actions)

The Pebble Beach Company shall fund and implement a long-term Piperia Plan including transplantation, enhancement, resource management and adaptive

management elements to offset project losses of piperia range and extent and sustain existing populations (Source = MMRP).

Roles and Responsibilities

Roles and responsibilities in implementing the Piperia Plan will be as follows:

- **Monterey County** will be the approving and authorizing party for implementation of the plan and for any changes determined feasible and necessary to promote its success.
- A qualified **third-party consultant** shall be selected by the County to prepare the final plan, implement research and testing during the initial phases, oversee the Pebble Beach Company implementation of large-scale enhancement and transplantation, oversee the Pebble Beach Company's resource management activities, and conduct annual oversight monitoring and reporting. The third-party consultant shall also prepare the piperia component of the SSRMPs, including a cost estimate for management and monitoring effort for the first 20 years and shall conduct the monitoring of the resource management effort for Yadon's piperia and report the results to the AMT.
- The **Resource Management Team** (RMT) shall be supplemented as the County determines appropriate to include scientists with expertise in Monterey pine forest ecology, Yadon's piperia, and conservation biology. The RMT will review and comment on the final plan, the SSRMPs, and will also be responsible for the annual review of progress as well as resource management activities conducted for existing piperia populations.
- The **Pebble Beach Company** and their **consultants** are expected to be the implementing party of transplantation, enhancement, and resource management with the oversight of the County, the third-party consultant, and the AMT.

The final Piperia Plan shall be based on the draft TEAM plan (Ecosystems West 2004 see Appendix I of the Draft EIR) as amended in Appendix I of the PRDEIR and shall contain a cost estimate for all aspects of implementation for the first 20 years. The final plan shall be reviewed by the RMT, and approved by the County prior to issuance of any grading permit for any site containing Yadon's piperia. The elements of the final approved plan shall be integrated into the SSRMPs for the project.

Funding and Guarantee

The Pebble Beach Company shall fully fund and implement the transplantation and enhancement aspects of final plan for at least 20 years, unless the County determines that the success criteria are met at each required transplantation and enhancement treatment area or the County determines that all feasible measures have been implemented to promote success of transplantation and enhancement efforts. Resource management of existing populations shall be conducted for at least 20 years. Enhancement and resource management shall continue beyond 20 years and the Pebble Beach Company shall fully fund and implement them if it is

determined by the County after considering a written recommendation by the RMT that such efforts are required for the long term sustainability of the species. Such determinations shall require and be presented at a noticed public hearing before the Board of Supervisors.

Upon approval of the final Piperia Plan, the Pebble Beach Company shall record a written guarantee to fulfill all required mitigation for impacts to Yadon's piperia against the real property comprising the new golf course site pursuant to requirements contained in the Yadon's piperia Plan. This obligation shall include Company's guarantee to provide adequate funding for the implementation of the Piperia Plan. Said guarantee shall provide a mechanism that would enable the County to impose and collect on a lien on the golf course property in the event that the Company fails to meet its funding obligations.

Piperia Plan Phasing

The transplantation and enhancement elements Piperia Plan shall be phased with each subsequent phase building on the knowledge of the prior phase.

- **Phase 1A: Research and Testing.** During this phase, a detailed understanding of Yadon's piperia ecology will be developed along with the methods and procedures for enhancement, transplantation, and resource management. This phase shall include investigations into the habitat characteristics for Yadon's piperia, examination of its horticultural requirements, and evaluation of its regeneration niche as outlined in the draft TEAM Plan (Ecosystems West 2004). Enhancement treatment areas (all locations identified below) and transplantation receiver sites (at MNOUV only) will be evaluated to identify impediments to Yadon's piperia, establish baseline conditions, and establish monitoring and control sites. This phase will also include the assessment and testing of feasible transplantation and enhancement methods in test plots in order to inform larger-scale efforts to follow in subsequent phases. The research component will continue into subsequent phases as needed to support adaptive management.
- **Phase 1B: Salvage and Transplantation.** During this phase, piperia at Area MNOUV within development areas will be salvaged for transplantation within retained forest areas not containing piperia at Area MNOUV. Transplantation will also be used experimentally on test plots at Area MNOUV to examine demographics characteristics and to inform management of the species overall.
- **Phase 2: Enhancement Application.** Enhancement activities can include short-term and sustained activities found to be feasible and effective during research and testing. Examples of enhancement activities include: control of non-native plant species, restoration of roads and trails, creating access controls, directed management actions (e.g. selective vegetation/duff clearance, spot fire treatment, deer exclusion, seasonally-adjusted weed-whacking). Enhancement activities that are single-year efforts shall be conducted in the early portion of this phase in order to evaluate their sustainability without maintenance. Sustained activities (such as removal of invasive non-native species) can be done annually (or at frequencies

determined to be necessary), but will be required to be continued in perpetuity as part of resource management within the treatment area after success demonstration if shown necessary to sustain population expansion/increases.

Enhancement activities shall only be conducted on areas that are: owned by the Pebble Beach Company or the Del Monte Forest Foundation and are presently preserved; within the Pebble Beach Company's proposed preservation areas; will be preserved prior to commencement of enhancement activities; or are within designated resource management areas. Required enhancement treatment areas shall include the areas identified in Master RMP Table 4-1.

- **Phase 3: Success Demonstration.** Success may be demonstrated at any time following six years after the commencement of enhancement activities within a treatment area or transplantation into a receiver site. Control sites shall be established for each treatment area/receiver site in adjacent existing Yadon's piperia populations in a similar environmental setting. Annual monitoring of the treatment area/receiver site and the control sites will be conducted to measure success. The success criteria must be met in at least three of five successive years. The County, in consultation with the RMT will make final determination of success demonstration.

- **Phase 4: Post - Success Management.** When success criteria are met, the Pebble Beach Company shall be responsible to maintain piperia populations in the former transplantation and enhancement treatment areas using the methods described below for resource management in addition to any enhancement measures that require periodic application. The Pebble Beach Company may be required to periodically submit a report on the piperia populations if in the opinion of the County there is evidence that there are reductions in populations due to management actions or inaction, or general decline of the species. Such management, maintenance or periodic enhancement efforts within enhancement treatment and transplantation areas shall continue in perpetuity, unless and until a) Yadon's piperia is delisted by USFWS and b) the County and USFWS both determine that the management, maintenance and enhancement activities are no longer necessary to the recovery of the species.

Resource Management

The Pebble Beach Company shall be required to manage preservation, conservation, and resource management areas (see Master RMP Table 4-2) to sustain the existing piperia populations and reduce potential indirect effects of existing and proposed development. These efforts shall be concurrent and complementary with the related preservation, conservation and resource management process for the Monterey pine forest and other related habitat as required by other mitigation measures identified in the Draft EIR. Resource management shall be informed by the other activities and results of the Piperia Plan.

MRMP Table 4-1. Required Enhancement Areas for Yadon's Piperia (acres)

Site ID	Total Site (1)	Existing Occupied Habitat	Unsuitable habitat	Potential Adjacent Habitat (2)	Potential Suitable for Enhancement (%)	Total (acres)
Required Enhancement Area in the Del Monte Forest						
Area PQR	233.1	45.9	11.5	175.7	6	13.8
Area I-1	38.2	13.9	6.0	18.3	9	3.1
Area G	47.9	11.8	16.0	20.2	2	0.8
Area H	53.2	9.1	1.3	42.8	8	4.1
Area B	22.1	0.6	2.6	19.0	*TBD*	*TBD*
Area J	9.4	2.6	1.9	4.9	*TBD*	*TBD*
Area L	18.2	0.5	1.1	16.5	*TBD*	*TBD*
HHNA/SFB	~200	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*
					Subtotal	>21.8
Required Enhancement Area Outside the Del Monte Forest						
Old Capitol	74.6 (3)	57.3	0.0 (3)	17.3	100	74.6
					Subtotal	>74.6

NOTES:

1 Total site acreage = acreage of Monterey pine forest coverage

2 Identification of potential adjacent habitat for Yadon's piperia is preliminary at this time, given that appropriate habitat characteristic studies have not yet been completed.

3 Acreage identified is area of undeveloped Monterey pine forest coverage at the site, entire site is approximately 135 acres; no field identification of unsuitable habitat has been conducted.

Modified from Ecosystems West 2004.

MRMP Table 4-2 Preservation and Other Areas to be Managed for Yadon's Piperia		
Location	Piperia (#)	Area (acres)
Conservation and Preservation Areas		
Bristol Curve Conservation Area	10,547	7.6
Preservation Area B	274	2.0
Preservation Area D	TBD	TBD
Preservation Area F-1	2,486	4.5
Conservation Area F-3	54	0.6
Preservation Area G	757	4.9
Preservation Area H	624	4.7
Preservation Area I-1	2,972	9.7
Preservation Area J	2,470	2.0
Preservation/Conservation Area K	5,933	4.3
Preservation Area L	4	0.1
Preservation Area PQR	54,436	40.5
Old Capitol Site (1996 occurrence)	2,467	57.3
Portion of Aguajito	TBD	TBD
Resource Management Areas Within Development		
Area NOUV (Retained habitat at golf course)	10,281	14.3
Spanish Bay Employee Housing (Retained habitat within lot)	TBD	TBD
Residential Area F-2, F-3, I-2, K, PQR) (open space parcels and piperia areas outside the reduced building envelopes)	7,369	7.7

Note: Occurrence acres based on 50-foot buffering of 2004 Yadon's Piperia surveyed patches. Individuals and acres are based on 2004 Surveys by Zander & Associates, except for Old Capitol and Aguajito which are based on Allen, 1996.

The Pebble Beach Company shall implement the resource management measures identified in the final SSRMP for each managed site. These measures shall include the following, as appropriate, for the managed sites unless the AMT determines that alternative measures would be more effective to sustain Yadon's piperia:

- Conduct annual monitoring and removal of invasive non-native species.
- Restrict maintenance activities in areas that support Yadon's piperia or time maintenance to avoid/reduce effect on the plant (such as conduct maintenance outside the leafing and flowering period (February to August)
- Control irrigation and site drainage at the Proposed Golf Course to avoid excessive runoff.
- Adopt integrated pest management methods for the Proposed Golf Course to reduce pesticide drift and runoff.
- Adopt a fertilizer management plan to avoid increased drift and runoff of excess fertilizer into piperia areas.
- Protect the populations in the Proposed Golf Course from unintended disruptions by pedestrians and golfers by fencing the perimeter of the adjacent retained forest or otherwise indicating this area as out of play. If permanent fencing or barriers are used, they shall be designed to allow for wildlife movement while deterring casual human ingress.
- Temporary protective fencing shall be used during large golf tournaments/events. This fencing shall be extended to the period of the species' leafing, blooming and fruiting if it is determined by the AMT that this is required.
- Develop and implement an environmental awareness education program. The Pebble Beach Company shall retain a qualified biologist to conduct a mandatory environmental awareness education program for construction and maintenance personnel. The program would cover all sensitive biological resource issues, mitigation measures, and permit conditions. The training program would be provided annually and would be mandatory for all construction and maintenance management and personnel. The program will cover measures that workers can implement to avoid and reduce the impact of their activities on Yadon's piperia
- Close and restore informal trails within existing piperia habitat.
- Coordinate management of existing piperia populations with management for other forest resources.

Monitoring

- **Transplantation and Enhancement** - Control sites shall be established for each treatment area/receiver site in adjacent existing Yadon's piperia populations in a similar environmental setting. Annual monitoring of the

treatment area/receiver site and the control sites will be conducted to measure success criteria described below

- **Resource Management** - Monitor existing piperia populations within preservation, conservation, and resource management areas annually for ten years, and at least every other year through the 20-year period. Monitoring protocols shall be developed as part of an adaptive management program within the site-specific resource management plans that link monitoring results to implementation of changes in management activities.

Success Criteria

Success Criteria for the Piperia Plan. The primary success criteria for the Piperia Plan is to achieve no net loss of Yadon's piperia due to the Proposed Project in terms of "occupied habitat" as defined below:

The following objectives shall be the metrics used by the County and the AMT to determine whether implementation of the plan is meeting the primary success criteria:

- **Enhancement** – The plan shall result in a sustained expansion of piperia range in terms of "occupied habitat" at each required enhancement treatment area where unnatural impediments (such as invasive non-native species) to natural expansion of existing populations are identified and feasible enhancement treatments are developed.
- **Transplantation** – The plan shall result in salvage of Yadon's piperia at the proposed golf course and transplantation within a proposed minimum of 20 acres of suitable retained forest at Area MNOUV not containing "occupied habitat". This work shall be accomplished in accord with guiding principals contained within the Piperia Plan. Enhancement and maintenance of the transplantation areas will occur such that they contain self-sustaining populations of piperia.
- **Exclusion of existing piperia areas** - Success will only be achieved if piperia are present within transplantation or enhancement treatment areas that did not previously contain Yadon's piperia.
- **Occurrences comparable to control sites** - Success will only be achieved if transplantation or enhancement treatment areas contain the percent of cover, density, and percent flowering not significantly different from those found in control sites within adjacent existing piperia populations.
- **Demonstration Period** - Success will only be achieved when the criteria of percent cover, density, and percent flowering are met for three of five successive years starting in the sixth year after initial enhancement or transplantation.
- **"Occupied habitat"** - The definition of what constitutes "occupied habitat" for the purpose of this success criteria shall be determined by the RMT based on the results of a detailed study of the habitat characteristics for Yadon's piperia (see description in the draft TEAM plan) to be conducted in the

spring of 2005. This study shall be conducted prior to completion of the final Piperia Plan. The resultant definition will be used to identify the areas containing piperia for the purposes of identifying transplantation and enhancement treatment areas. If an acceptable definition of "occupied habitat" is not developed as a result of the spring 2005 habitat characteristics study, the default definition of "occupied habitat" shall be the piperia occurrence areas identified in the PRDEIR based on the 2004 survey results.

The specific measures used to evaluate the success criteria and these objectives will be further developed within the Piperia Plan. As the Piperia Plan's research and analysis proceeds, the County and RMT will likely develop improved measures to assess how replacement efforts are meeting the primary success criteria and these objectives. The County and the RMT may determine that the objectives should be different than those articulated above based on an expanded understanding of Yadon's piperia.

Success Criteria for Resource Management. The success criteria for resource management is the maintenance of existing piperia within areas of "occupied habitat" as defined through the Piperia Plan. The specific evaluation measures will be developed during the preparation of the SSRMPs and will be informed by the final Piperia Plan.

Contingency/Remedial Actions

After five years of Piperia Plan implementation the County will consult with the AMT and determine the level of plan success, and estimate the likelihood of full success within 20 years of plan implementation. If the County determines that additional efforts toward species enhancement are not likely to be successful the Pebble Beach Company will be required to initiate a search for additional lands which can be used to offset the remaining unmitigated loss of habitat at a ratio of 1:1 habitat enhanced or preserved to habitat lost and not mitigated. Mitigation credit would be given for preservation of additional occupied habitat or creation of new occupied habitat through enhancement activities. Funding enhancement activities on existing protected areas (such as Point Lobos State Reserve or Manzanita County Park) or dedication of conservation easements for unprotected areas (owned by the Pebble Beach Company or others) will be acceptable as part of this contingency measure. In order to receive credit for enhancement of an area, the area must be situated in or directly adjacent to a patch of occupied piperia habitat and contain suitable habitat that is at least 1 acre in size. In order to receive credit for preservation, the area must contain a contiguous area containing occupied piperia habitat that is at least 1 acre in size.

After a full ten years of Plan implementation the County will again consult with the AMT and determine the level of plan success and estimate the likelihood of full success within 20 years of plan implementation. If the County can not conclude that efforts toward species enhancement will be successful, it will develop a plan to insure full mitigation through increased efforts or the preservation or enhancement of additional lands. This plan may require the

immediate acquisition of land purchase options to allow potential plan implementation.

After 15 years of Plan implementation if the County can not conclude that full plan success is likely within the full 20 year period and that additional efforts to enhance the species are not sufficient to assure recovery the County, in consultation with the AMT, will prepare a prioritized list of preservation and/or enhancement opportunities based on the following order of priority:

- Within the Del Monte Forest
- Within the Monterey Peninsula
- Within Yadon's piperia's known range

Based on the prioritized list, the Pebble Beach Company shall develop an enhancement and/or preservation proposal for review and approval by Monterey County (in consultation with the AMT). This contingency mitigation will be sufficient to offset the remaining unmitigated loss of habitat at a ratio of 1:1 habitat enhanced or preserved to habitat lost and not mitigated. Success criteria for enhancement will be as described above.

Pacific Grove Clover

The only resource management prescriptions for these species apply only to the Proposed Golf Course location and are described below in Chapter 5 as site-specific measures.

Hooker's and Sandmat Manzanita

The following is derived from the DEIR and FEIR as reflected in the MMRP, *the Ecological Management Implementation Plan* (County of Monterey and Ecosynthesis 1998) and the DMF/PDP *Special Status Species Report* (Zander 2001).

Goals

- Include species within Monterey pine forest restoration areas where consistent with local vegetation patterns.
- Protect existing populations within preservation areas

Actions

- **Seed Distribution and Outplanting** - Where ecologically appropriate, mature fruits will be collected and cleaned, scarified or otherwise pretreated

and the resulting seeds distributed within the target planting area. As an alternative to seed distribution, plants grown from local stock from the nearest vicinity of the target planting area may be started in the nursery and outplanted in late fall or early winter (Source = DMF/PDP Special-Status Species Report).

- **In-situ management** - Existing occurrences require little management as lone as natural vegetation, soils, and drainage patterns are maintained. Non-native invasive species control and erosion control measures described elsewhere in this document shall be conducted within existing occurrences where needed to maintain these occurrences (Source = DMF/PDP Special-Status Species Report).

Monitoring

- **Seed Distribution and Outplanting** - Periodic (minimum of once annually for the first five years), monitoring of target planting areas shall be conducted to evaluate the success of replanting (Source = EMIP).
- **In-situ management** - Periodic (minimum of once every five years), general mapping of Hooker's manzanita and sandmat manzanita shall be conducted to evaluate the extant range and extent of occurrences within management areas (Source = Master RMP).

Success Criteria

- **Seed Distribution and Outplanting** - There are no specific overall success criteria for resource management of Hooker's manzanita and sandmat manzanita. Specific replanting opportunities shall be identified in the SSRMPs, but a quantitative outcome is not specified.
- **In-situ management** - Existing occurrences within resource management areas shall be sustained so that they do not vary more than 20% than existing (pre-project) extent and range, unless the change is identified to be unrelated to resource management efforts (Source = Master RMP).

Hickman's Onion

The following is derived from the DEIR and FEIR as reflected in the MMRP, *the Ecological Management Implementation Plan* (County of Monterey and Ecosynthesis 1998) and the DMF/PDP *Special Status Species Report* (Zander 2001).

Goals

- Include species within restoration areas where consistent with local vegetation patterns.

- Protect existing populations within preservation areas

Actions

- **Restoration within Area PQR** - Hickman's onion shall be restored within the wet meadow in Area PQR where a trail crosses the existing occurrence by propagation of individuals in the nursery collected from the surrounding occurrence and outplanting. Soil may be scarified or not and may be seeded with native species that co-occur with Hickman's onion (to be determined in the SSRMPs) (Source = DMF/PDP Special-Status Species Report).
- **Restoration in Other Preserves** - Other suitable sites in preserved areas may also be enhanced using similar measures as for Area PQR (Source = Special-Status Species Report).
- **In-situ management** - Existing occurrences require little management as long as natural vegetation, soils, and drainage patterns are maintained (Source = DMF/PDP Special-Status Species Report). Non-native invasive species control and erosion control measures described elsewhere in this document shall be conducted within existing occurrences where needed to maintain these occurrences.

Monitoring

- **Propagation and Outplanting** - Periodic (minimum of once annually for the first five years), monitoring of target planting area(s) shall be conducted to evaluate the success of outplanting in Area PQR and any other areas where outplanting is conducted. Monitoring of transplantation/restoration areas and adjacent control populations shall occur at a time when flowering or fruiting stalks are still evident (month will vary according to climate) (Source = EMIP, Master RMP).
- **In-situ management** - Periodic (minimum of once every five years), general mapping of Hickman's onion shall be conducted to evaluate the extant range and extent of occurrences within management areas (Source = Master RMP).

Success Criteria

- **Propagation and Outplanting** - There are no specific overall success criteria for resource management of Hickman's onion. Additional specific replanting opportunities shall be identified in the SSRMPs, but a quantitative outcome is not specified.
- **In-situ management** - Existing occurrences within resource management areas shall be sustained so that they do not vary more than 20% than existing (pre-project) extent and range, unless the change is identified to be unrelated to resource management efforts (Source = Master RMP).

Pine Rose

The following is derived from the DEIR and FEIR as reflected in the MMRP.

Goals

- Protection and retention of pine rose where feasible within development areas
- Salvage of pine rose within development areas where retention is infeasible and replanting within resource management areas.
- Include species within restoration areas where consistent with local vegetation patterns.

Actions

- **Preconstruction Survey** - Conduct a preconstruction survey to identify the location and extent of the occurrences on the project sites (Source =MMRP).
- **Avoid and Protect Occurrences** - Avoid and protect pine rose occurrences, where feasible, by installing protective fencing prior to construction. A 4-foot tall, brightly colored (usually yellow or orange), synthetic mesh–material fence, or an equivalent approved by the County, shall be installed before allowing any construction equipment to be moved onto any project development site in proximity to pine rose that will be retained before any construction activities take place. No construction activities, including grading, shall be allowed until this condition is satisfied. The County must first approve any encroachment within the fenced area. No grading, clearing, or storage of equipment or machinery, or similar activity, may occur until a representative of the County has inspected and approved all temporary construction fencing. This restriction applies to both onsite and offsite improvements. The temporary fencing shall be maintained until all construction activities are complete. No grading, trenching, or movement of construction equipment shall be allowed within fenced areas. All construction activities would be restricted from this fenced area. The contractor may remove the fencing only after all construction activities have been completed (Source =MMRP).
- **Salvage and Replant** - Remove and replant pine rose where avoidance is not feasible. Pine rose plants that cannot be avoided will be salvaged for replanting in adjacent areas as part of resource management (Source =MMRP).
- **Restore Species in Concert with Forest Management** - Incorporate proposals for restoration of this species to suitable sites into the site-specific RMPs and Annual Work Plan. (Source =MMRP).

Monitoring

- **Construction Monitoring** - Preconstruction survey shall identify all pine rose proposed for removal. Construction plans shall identify all retained pine rose within development areas and show protection measures on construction plants. Construction records of pine rose retained, salvaged and replanted shall be maintained for each development site including mapping of all retained and replanted pine rose plants (Source =MMRP).
- **Replantings** - Periodic monitoring (once every year for the first five years) shall be conducted of replanted pine rose plants (Source =Master RMP).

Success Criteria

- **Construction Monitorin**g - There are no specific avoidance criteria.
- **Replantings** - If periodic monitoring identifies that more than 50% of initial construction period replantings have failed to be self-sustaining after 5 years, additional replantings and monitoring shall be conducted until replanted pine rose plants, representing at least 50% of the initially removed pine rose plants, are self-sustaining after 5 years of their planting (Source = Master RMP).

Monterey Clover

The following is derived from the DEIR and FEIR as reflected in the MMRP, *the Ecological Management Implementation Plan* (County of Monterey and Ecosynthesis 1998) and the DMF/PDP *Special Status Species Report* (Zander 2001).

Goals

- If approved by CDFG and PBCSD/CDF, evaluate the effectiveness of prescribed burning as a management tool for Monterey clover in portions of Area G and other parts of HHNA.

Actions

- **Prescribed burning proposal** - Prepare a proposal for a small-scale experimental prescribed burn within a portion of the Monterey clover occurrence in Area G as part of the SSRMP for the expanded HHNA and submit to CDFG, USFWS, and PBCSD/CDF, and Monterey County (Source = DMF/PDP Special Status Species Report and Master RMP).
- **Prescribed burn test** - If approved by Monterey County, DFG, USFWS, and PBCSD/CDF conduct the experimental prescribed burn and monitor results (Source = DMF/PDP Special Status Species Report and Master RMP).

- **Prescribed burn application** - If monitoring indicates effectiveness of experimental burn, expand proposal for prescribed burn where feasible, controllable, and safe in other Monterey clover locations within the expanded HHNA area and submit to the same agencies for approval. If approved, conduct prescribed burns in the approved areas at the recommended frequency identified in perpetuity as needed to maintain clover occurrences (Source = DMF/PDP Special Status Species Report and Master RMP).

Monitoring

- **Prescribed burn test** - If approved, monitor test area for Monterey clover regeneration annually for five years in terms of relative cover and density compared to control sites, and make recommendation for frequency for management of prescribed burn areas (Source = Master RMP).
- **Prescribed burn application** - If approved, monitor application areas for Monterey clover regeneration annually for five years in terms of relative cover and density compared to control sites. Recommend adjusted frequency for management of prescribed burn areas as monitoring identifies (Source = Master RMP).

Success Criteria

- **Prescribed burns** - No specific mandated success criteria is identified pursuant to adopted mitigation. Success criteria for the purposes of evaluating effectiveness of prescribed burns shall be developed during preparation of the SSRMP for the expanded HHNA area and may be adjusted based on monitoring of the prescribed burn test.

Dune Special Status Species

Resource management prescriptions for special-status plant species found within the Signal Hill dunes are described below in Chapter 5 as site-specific measures.

4.2 Special-Status Wildlife Species

California Red-Legged Frog

The following is derived from the DEIR and FEIR as reflected in the MMRP, the DMF/PDP *Wetlands Report* (WRA 2001), the DMF/PDP *BMP Plan* (Questa 2001), and the DMF/PDP *Pre-Construction Notification* for wetland restoration (WRA 2003).

Goals

- Creation of additional breeding habitat within Lower Seal Rock Creek
- Maintenance of existing foraging and dispersal habitat in wetlands and one seasonal pond in the Proposed Golf Course
- Control of indirect water quality effects

Actions

- **Incidental Take Authorization** - The applicant shall obtain an incidental take authorization under the federal Endangered Species Act (ESA) from USFWS (either through Section 10 or Section 7 processes) and will incorporate all measures required by USFWS into the site-specific RMPs. The incidental take permit (ITP) or final Biological Opinion shall be obtained prior to the issuance of any grading permit, approval of any final map, or approval of the site-specific RMPs.
- **Construct new breeding habitat** - Design new breeding habitat by creating three new ponds along Seal Rock Creek in accordance with criteria to establish CRLF habitat characteristics. Ponded water depth should be a maximum of 2 to 3 feet with water present through July. A fringe of native species should be planted around the ponds' perimeter, with a mix of tules and spikerush (Source = DMF/PDP PCN, MMRP).
- **Maintain Wetland Buffers** - Site designs will be modified to expand the buffer areas to allow for a minimum buffer of 25 feet around Proposed Golf course wetlands. The minimum buffer shall be maintained for all wetlands regardless of modifications to development plans. Proposed overstory clearing will be allowed within the buffer areas for Wetlands D and I and along Drainage I (outside of the 40' buffer for the ESHA seasonal pond, where no overstory removal will be allowed). All other existing vegetative cover for CRLFs within the buffer area of all development areas shall be maintained with no mowing or use of fertilizers or herbicides within the buffer. The purpose of the minimum 25' buffer is to ensure native vegetation in and adjacent to wetland areas and Drainage I that can be used by CRLF for foraging and dispersal without direct effects from golf course operations (Source = MMRP).
- **Enhance Wetland Areas** - Enhance currently converted or developed areas within the designated wetland buffers on the Proposed Golf Course site as described above for wetland management by decompacting soil and revegetating and replanting native vegetation wherever feasible within the confines of golf course design. (Source = MMRP)
- **Predator Control** - Prepare a predator control and monitoring plan for operations at the Proposed Golf Course, Spanish Bay Driving Range, and New Equestrian Center. This shall be included in the SSRMPs (Source = MMRP).

- **Vegetation Control** - Evaluate mechanical and/or hand removal alternatives to use of chemical weed control for non-native vegetation control in wetlands on the Proposed Golf Course site. Options shall be included in the SSRMPs (Source = MMRP).
- **Integrated Pest Management** - Use herbicides and pesticides that are compatible with aquatic systems and not toxic to aquatic organisms (e.g., glyphosate [taking care not to use glyphosate formulations, such as Roundup, that contain surfactants] and triclopyr are preferable to fenamiphos and carbaryl) (Source = MMRP). A Risk Management Plan, identifying all proposed herbicide and pesticide use at the Proposed Golf Course, shall be identified and submitted to the third-party consultant during preparation of the draft SSRMPs (Source = DMF/PDP BMP Plan).
- **Mosquito Control** - The introduction of mosquitofish into project area aquatic habitats is prohibited (Source = MMRP).
- **Construction controls (General).** Conduct preconstruction surveys in all upland areas within 300 feet of aquatic habitat scheduled for temporary disturbance and capture and relocate CRLFs to nearby suitable habitat. It may be necessary to construct temporary exclusion fencing to prohibit CRLFs from entering construction areas. If the filling of the detention pond at the Corporation Yard occurs more than 1 year after the last CRLF protocol survey, conduct pre-construction surveys of the detention pond prior to filling it. Use signs and fencing as necessary during construction to maintain the designated permanent buffer around all wetlands on the Proposed Golf Course. Implement worker education programs before and during construction as needed and include information on CRLF. Have a qualified biologist present as needed during all construction activities within suitable CRLF habitat, including upland habitat within 300 feet (Source = MMRP).
- **Construction controls (breeding ponds)** - Work will not be conducted in aquatic habitat areas during CRLF breeding season (November-March). Pre-construction surveys of aquatic habitats and adjacent upland areas will be conducted by a qualified, USFWS-approved wildlife biologist. Any observed CRLF will be relocated according to procedures set forth during Section 7 consultation. Barriers of mesh netting (minimum of 0.25 inch) or other material shall be properly designed, installed, and maintained in appropriate aquatic habitats to exclude any/all CRLF from construction areas; barriers shall be constructed and in place for a minimum of seven days prior to commencement of activity. Appropriate sediment and erosion control BMPs will be implemented to protect downstream water quality during construction (Source = DMF/PDP PCN).

Monitoring

- **Golf Course Wetlands** – Periodic monitoring of wetlands shall be conducted after construction of the golf course and completion of wetland restoration activity to evaluate if the actions noted above are being completed and that buffers from the golf course are being maintained (Source = Master RMP).

- **Integrated Pest Management** – Pesticide application reports shall be provided to Monterey County annually for review to ensure that pesticides and herbicides compatible with aquatic systems are being used for turf management of project areas (Source = Master RMP).
- **CRLF Breeding Ponds -** Monitoring in Parcel L-Seal Rock Creek breeding ponds will focus on hydrology and establishment of native vegetation. Hydrology and vegetation monitoring will be conducted until performance criteria are met for three consecutive years (Source = DMF/PDP PCN).

Success Criteria

- **Golf Course Wetlands** – No encroachment within established wetland buffers; less than 10% cover by non-native invasive species (Source =MMRP, DMF/PDP PCN).
- **Integrated Pest Management** –Use of pesticides and herbicides compatible with aquatic systems turf management of project areas (Source = MMRP).
- **CRLF Breeding Ponds -** Created ponds will be determined successful if performance criteria are met for three consecutive years. Minimum performance criteria include:
  - Ponds hold water through the month of July;
  - Greater than 80 percent cover by native emergent wetland vegetation along 50 percent of the pond margins;
  - Zero percent plant cover in pond interior;
  - Greater than 80 percent overall plant cover in buffer areas; and less than 10 percent cover by invasive non-native plant species (Source = DMF/PDP PCN).

Contingency/Remedial Action

- **Hydrology** - If hydrology performance criteria are not met within three years, the re-design of the ponds and/or addition of supplemental water may be required.
- **Vegetation** - If vegetation performance criteria are not met within three years, supplemental plantings may be required. Ponds may be surveyed for CRLF for information purposes; however, frogs do not need to be observed for the created ponds to be determined successful (Source = DMF/PDP PCN).

Smith's Blue Butterfly

Management prescriptions for enhancement of habitat for this species only apply to the remnant dune area at the Signal Hill dune and the Proposed Golf Course. Since these are site-specific prescriptions, they are discussed below in Chapter 5.

Pallid Bats

The following is derived from the DEIR and FEIR as reflected in the MMRP, and the *DMF/PDP Special-Status Species Report* (Zander 2001).

Goals

Retention of habitat for pallid bats within retained forest areas.

Actions

- **Retention of dead trees and snags –** The SSRMPs shall include requirements that dead trees or snags be left or created, wherever feasible, in retained habitat in development areas and in preservation areas for pallid bats (Source = MMRP).
- **Artificial roosts** – Artificial roosts shall be constructed in open space preserve areas. Design of such roost for bat species shall be undertaken with advice from experts in pallid bats and common bats that may occur in the area. Roosts can be incorporated into bridges, culverts, or other structures that receive little human intrusion (Source = DMF/PDP Special Status Species Report).
- **Insect Control BMPs** – Insect control programs within project areas in or adjacent to areas containing bat habitat will use best management practices and will incorporate the advice of qualified biologists to minimize effects to bats from direct or food chain poisoning or through reduction of bat food base (Source = DMF/PDP Special Status Species Report).
- **Tree Removal BMPs** – Trees will be monitored for presence of bats in trees to document characteristics of those trees for management. Where bats are present and removal can be delayed outside of breeding season, removal should occur outside of the breeding season. If removal can be avoided, it should be done (Source = DMF/PDP Special Status Species Report, Master RMP).

Monitoring

- **Retention of dead trees and snags –** As part of overall forest monitoring, suitable dead trees or snags shall be inventoried for retention and habitat characteristics for bats. Periodic surveys of dead trees and snags shall be conducted to identify bat use (Source = Master RMP).
- **Artificial roosts** –Periodic surveys of artificial roosts shall be conducted to identify bat use (Source = Master RMP).
- **Insect Control BMPs** – Insect control plans shall be reviewed by the third-party monitoring consult and/or a qualified independent biologist to ensure feasible minimization measures relative to effects on bats are employed (Source = DMF/PDP Special Status Species Report, Master RMP).
- **Tree Removal BMPs** – All proposals for removal of dead trees or snags shall be reviewed by the third-party monitoring consultant prior to removal (Source = Master RMP).

Success Criteria

- **Retention of dead trees and snags –** SSRMP monitoring shall document retained dead trees and snags wherever feasible within the resource management area. If pallid bats are positively documented within the Del Monte Forest, the success criteria is documented use of some of the retained trees within management areas (Source = Master RMP).
- **Artificial roosts** – If pallid bats are positively documented within the Del Monte Forest, the success criteria is documented use of some of the artificial roosts within management areas (Source = Master RMP).
- **Insect Control BMPs** – Success is incorporation of feasible minimization measures within insect control plans (Source = Master RMP).
- **Tree Removal BMPs** – Avoidance of removal during bat breeding season and minimization of removal of dead trees and snags where feasible (Source = Master RMP).

Chapter 5
Site Specific Resource Management

This Chapter describes draft site-specific resource management prescriptions to be implemented in the context of the habitat management and special-status management measures described above. Further site-specific measures will be elaborated based on the guidance in this document at the time of preparation of the Site-Specific RMPs. As an example, while weed control measures are articulated in this document as part of the overall resource management plan, specific site success criteria for weed control will need to be identified in the SSRMPs.

Table 5-1 identifies the habitat management, special-status species management, and site-specific resource management measures for each resource management area. Habitat management measures shall be identified in the SSRMP based on the guidance in Chapter 3. Special-status species management shall be identified in the SSRMPs based on the guidance in Chapter 4. Other site-specific resource management measures shall be identified based on the guidance in this chapter.

If additional measures not mentioned in this document are required pursuant to the adopted final MMRP or adopted permit conditions, this document shall not limit the application of those additional measures. While subsequent adopted permit conditions may increase the resource management measures, they shall not be less stringent than the measures identified in this document, nor in the final MMRP, unless subsequent CEQA review by Monterey County determines that either (a) the measures in this document are effective to mitigate DMF/PDP significant effects and alternative measures have been adopted; or (b) the measures in this document are not necessary to mitigate DMF/PDP effects due to the development of substantive new resource information not available at the time of the preparation of this document.

Table 5-1
Master Resource Management Plan
Resource Management Prescriptions
Pebble Beach Company's Del Monte Forest Preservation and Development Plan

Resource Management Areas	Habitat Management	Special Status Plant Management	Special Status Wildlife Management	Site-Specific Resource Management Measures
Conservation and Resource Management Areas within Development				
Signal Hill Dune Conservation Area	Coastal Dune	Dune Plants	Smith's blue butterfly	Dune restoration Drainage control (Golf course) Irrigation control (Golf course) Pesticide control (Golf course) Fertilizer control (Golf course) Landscaping control (Golf course) Weed control Access Control (Golf course and ESHA)
Bristol Curve Conservation Area	Monterey Pine Forest	Yadon's Piperia Hooker's manzanita	Potential pallid bat	Restoration of forest to abandoned Bristol Curve
"Forest" Golf Course Resource Management Areas	Monterey Pine Forest Wetlands/Seasonal Pond Water Quality	Yadon's piperia Pacific Grove clover	California red-legged frog (non-breeding)	Monterey pine forest restoration Transplantation of Yadon's piperia Wetland restoration Wetland/Seasonal pond hydrology maintenance Pacific Grove clover management Integrated pest management (Golf Course)
New Equestrian Center Resource Management Areas	Monterey Pine Forest Wetlands Water Quality	Yadon's piperia? Pine rose	Potential pallid bat Potential California red-legged frog	Wetland restoration Wetland hydrology maintenance Water quality control Weed control Environmental education
Spanish Bay Driving Range Conservation Area	Monterey Pine Forest Wetlands Water Quality		Potential pallid bat Potential California red-legged frog	Wetland restoration Integrated pest management (Driving Range)
Preservation Area B/Spanish Bay Employee Housing Resource Management Area	Monterey Pine Forest Wetlands/Riparian Water Quality	Yadon's piperia	Potential pallid bat	Yadon's piperia enhancement area Wetland restoration Wetland hydrology maintenance
Residential Subdivision Resource Management Area (combined SSRMP for all open space parcels and retained habitat with residential subdivisions in Areas F-2, F-3, I-2, K, and PQR)	Monterey Pine Forest	Yadon's piperia Hooker's manzanita Pine rose Sandmat manzanita (indiv.)	Potential pallid bat	Limit building envelopes (all) Maintain Gowen cypress setbacks Maintain Spruance meadow setbacks

Table 5-1
Master Resource Management Plan
Resource Management Prescriptions
Pebble Beach Company's Del Monte Forest Preservation and Development Plan

Resource Management Areas	Habitat Management	Special Status Plant Management	Special Status Wildlife Management	Site-Specific Resource Management Measures
Preservation Areas				
Expanded Huckleberry Hill Natural Area (combined SSRMP for contiguous areas including HHNA/S.F.B. Morse Preserve, Preservation Area D, Preservation Area F-1, Preservation Area G, Preservation Area H, Conservation Area G-3, the Corporation Yard Preservation Area, and the Green Trail between HHNA and Spanish Bay)	Monterey Pine Forest Monterey Pygmy Forest Wetlands/Riparian	Gowen cypress Yadon's piperia Monterey clover Pine rose Sandmat manzanita (indiv.)	Potential pallid bat	Gowen cypress restoration Yadon's piperia enhancement area Monterey clover management Erosion control and trail maintenance Water quality control Access Control Weed control Environmental Education
Lower Seal Rock Creek Area (combined SSRMP for areas including Preservation Area I-1, Preservation Area J, Conservation Area K, and Preservation Area L)	Monterey Pine Forest Wetlands/Riparian Coastal Dunes	Yadon's piperia Hickman's onion Pine rose Sandmat manzanita (indiv.)	California red-legged frog (breeding) Potential pallid bat	Monterey pine forest enhancement (Area J) Yadon's piperia enhancement area CRLF breeding pond creation
Preservation Area PQR	Monterey Pine Forest Wetlands/Riparian	Yadon's piperia Hooker's manzanita Sandmat manzanita (significant occurrence) Hickman's onion	Monterey dusky-footed woodrat Potential pallid bat	Yadon's piperia enhancement area Hickman's onion restoration
Old Capitol Preservation Area	Monterey Pine Forest	Yadon's piperia		Monterey pine forest restoration Monterey pine forest enhancement Yadon's piperia enhancement area
Aguajito Preservation Area	Monterey Pine Forest	Yadon's piperia		Yadon's piperia enhancement area

5.1 Development Areas

This section includes resource management areas within DMF/PDP development areas as well as conservation/preservation areas directly adjacent to development areas.

Signal Hill Dune Conservation Area

The following is based on the DEIR and FEIR as reflected in the MMRP, DMF/PDP *Biological Resources of the Del Monte Forest Coastal Dunes Report* (Zander Associates 2001), the *Ecological Management Implementation Plan* (Monterey County and Ecosynthesis 1998), and *the Management Plan for Del Monte Forest Open Space Property* (OSAC 1983).

Goals

- Permanent protection of dune habitats.
- Increase of habitat values.
- Elimination of invasive exotic plants as feasible.
- Revegetation with native plant materials.
- Direction of recreational access.
- Creation of compatible adjacent environments.
- Management of adjacent uses.

Management policies for Category II, protected natural reserves, outlined in the OSAC Management Plan (LSA 1983) include the following and apply to all preserve areas with dune habitat.

- Manage for preservation of conditions that are favorable for sustaining rare plant associations or typical forest community examples;
- Manage boundary areas to prevent external influences from adversely affecting plant vigor;
- Eliminate invading exotic species; and
- Protect and enhance remnant dunes.

Actions

Dune Restoration

Dune Stabilization

To stabilize the dunes and prevent large-scale movement of sand by prevailing onshore winds, various methods of temporary or permanent protection may be necessary, depending on existing vegetative cover, exposure, management area and management objectives. These measures may include, but are not necessarily limited to, crimped or plugged rice straw, snow fences, jute netting, temporary overheard irrigation and vegetative windbreaks composed of appropriate native strand or dune scrub species. Application of these dune stabilization measures will vary with the particular management area (see site-specific discussion below); areas of newly created dune landforms; and areas of large-scale non-native species eradication will need more protection than already existing relatively stabilized areas. Vegetative breaks may need to be planted one or more years prior to removal of iceplant, European beach grass or other stabilizing non-native vegetation. Straw crimping or installation of snow fencing can have more rapid results in areas of shifting sands. More aggressive techniques such as jute netting, hydroseeding with nurse crops and/or overhead irrigation could be necessary where new dune landforms are created as design elements of the golf course (Source = DMF/PDP Dunes Report).

Dune Creation

In areas where dune landforms will be created in the context of the adjacent golf course, the creation site will be initially cleared and graded to create final subsurface contours. Much of the on-site material in the Spyglass Pit area consists of unconsolidated fill material from various sources; this material is largely unsuitable for dune creation. However, some native and stockpiled sand can be found in the area, or through over-excavation, and will be sorted, salvaged and stockpiled as part of the grading activity. In limited cases, such as beyond the golf course grading line in previously mined areas, dune habitat will be reestablished where dune sand substrates are presently substantially absent. These areas will not be graded as part of the golf course, but rather will be prepared by removal of existing vegetation and topsoil (O, A, and/or B horizon, if present) (Source = DMF/PDP Dunes Report, EMIP).

Native plants shall be salvaged for reuse in restoration as feasible. As dune sand is removed, a field determination shall be made by the supervising restoration scientists of whether the available sand is of uniform quality throughout, or is less uniformly fine and sterile below. If the dune sand is uniformly suitable for dune species throughout its depth, it will be recovered and spread as single lift. If not, an upper lift will be temporarily stockpiled and replaced as the upper lift at the dune creation site. Dune sand will be installed with a minimum thickness of three feet (Source = EMIP).

As suitable sandy soils are identified through golf course grading, they will be stockpiled and eventually used as dune form creation material. All created dune

forms will contain a significant (+50%) sandy fraction in the upper two to three fees of surface layers (Source = DMF/PDP Dunes Report).

Created dune areas will require more aggressive stabilization and revegetation techniques than dune restoration areas on existing sandy substrates. The landforms can be irrigated to keep the created dune landforms moist, because wet sandy soils weigh more than dry sand and are less likely to be transported by wind. Hydromulching with a mixture of native and non-native nurse crops will also be necessary in the initial stages. The use of jute netting, erosion blankets, straw crimping or other active stabilization techniques may also be necessary and will be determined through daily construction monitoring. Subsequent plantings and/or seedlings will follow using species selected from the coastal strand and dune palette (Source = DMF/PDP Dunes Report).

Habitats created or restored within the golf course perimeter shall be regarded and managed as landscape features rather than habitat mitigation (Source =EMIP).

Revegetation

Both restored dunes and created dune form areas will be revegetated with planting mixtures generally mimicking the plant composition of the vegetation types mapped for the Signal Hill Dune. The need and timing for introduction of plant materials into an area will vary with the objectives of each designated management area (see site-specific discussion below) and will be closely tied to the non-native species eradication schedule. Plant materials, such as. seeds, cuttings, root divisions, seedlings, and whole plants, will be collected from on-site Signal Hill Dune stock and either applied directly or propagated in the Pebble Beach Company native plant nursery until such time as outplanting can be completed with optimum success. The need for supplemental irrigation, fertilization or other relatively high maintenance plant establishment techniques will be reduced in most management areas by the use of appropriate native species at an appropriate life stage introduced at an appropriate time of year. However, in those areas requiring more aggressive restoration/establishment, such as formerly mined substrates or created dune landforms, supplemental irrigation, fertilization and other standard landscaping practices may be necessary (Source = DMF/PDP Dunes Report).

Contingent upon permission from the California Department of Fish and Game for the collection of seeds, restored dune habitat shall be supplemented with salvaged or propagated seeds or individuals of special-status dune plant species such as Tidestrom's lupine, sand gilia, Monterey spineflower, and beach layia. For each of the special-status species, at least two colonies will be established by distributing seed collected from the existing occurrences, supplemented by seed from individuals propagated in the nursery. The number of seeds to be collected will be limited to a small percentage of the fruits from any one plant. Scarification prior to propagation or distribution in the field will be applied as appropriate to each species (Source = DMF/PDP Dunes Report).

As part of the seed collection effort proposed for special-status plants, the Pebble Beach Company shall limit collection to no more than 10% of the fruits from any

one plant and no more than 5% of the total seed production from an occurrence in any one year (Source = MMRP).

Rare plant dune restoration areas within the ESHA area shall be located away from the perimeter of the golf course and the perimeter of designated trails unless such areas are not located where they are likely to be directly affected by recovery of errant golf balls, or the movement of trail users (Source =MMRP).

Replanting shall include planting seacliff buckwheat in restoration areas for Smith's blue butterfly. If Smith's blue butterfly are observed in the vicinity of the Signal Hill dune, no seacliff buckwheat shall be removed as part of the golf course, dune restoration, or trail management (Source =MMRP).

Weed Control

Non-native species relevant to the Signal Hill dune area are iceplant, European beach grass, ripgut brome, acacia, French broom, and pampas grass. Eradication and control of these non-native species will be accomplished by a combination of chemical and mechanical means. Chemical removal is best done with a glyphosate-based herbicide such as Roundup. Broadcast spraying may be acceptable in areas where the target species produce almost the entire vegetative cover, where special measures are not needed to protect native plants and where the risk of native plant loss due to drift of spray into non-target areas is minimal (Source = DMF/PDP Dunes Report).

Where native plants occur at a high enough density in treatment areas, spot spraying or manual removal (hand-weeding) will be necessary (Source = DMF/PDP Dunes Report).

The dead plants and debris may be left in place as mulch and wind protection, or may be removed by hand to minimize the source of nutrients for non-native species. The determination of removal or non-removal of organic debris will be made on the basis of the target vegetative cover and monitoring (Source = DMF/PDP Dunes Report).

Access Control

The Dune ESHA shall be designated as out of play to prevent ball retrieval within the ESHA and positive physical barriers will be placed to prevent golfer access. Ball retrieval in this area will only be by maintenance personnel who have gone through an environmental education program that identifies the sensitive resources in the dune area and how to avoid impacts. All ball retrieval will be by hand only without the use of tools, mechanical or otherwise. (Source =MMRP).

Control of pedestrian and equestrian traffic in the Signal Hill dune area shall be implemented by designation of trails, closure of informal trails, use of barriers,

signage, and environmental education. As a component of the restoration program, a formalized trail system through the Signal Hill Dune will be established and maintained. The Green Trail,or its equivalent, will remain as the main thoroughfare through Signal Hill and will continue to accommodate both pedestrians and equestrians. However, equestrian use will be directed to areas that can withstand, or have been designed to withstand, constant trampling. More permanent (possibly structural) dune stabilization techniques, such as erosion blankets, jute netting, snow fencing, may be applied on the some of the more pronounced eroded slopes along the trail. Barriers such as post and cable or split rail fencing may need to be installed to keep horses and their riders on the designated trail. Parallel boardwalks for pedestrians may also have to be installed in some areas. In addition, pedestrian boardwalks through other parts of Signal Hill will be considered to direct foot traffic through the dunes, allowing for the restoration of unplanned trails and further protection of dune habitat. Restored trails and habitat restoration areas shall be designated by signage and/or barriers, which would become progressively more stringent as necessary (Source = DMF/PDP Dunes Report).

Permanent physical barriers shall be constructed between the edge of the golf course and all portions of the Dune ESHA to prevent all direct access. The barriers shall be a minimum of 42 inches high, and shall be constructed in a manner that discourages pedestrians from crossing the barrier (Source =MMRP).

Permanent physical barriers shall be constructed along the edge of the “Green Trail” and other portions of the Dune ESHA as necessary to prevent pedestrians from use or creation of informal trails in the remnant dune area. The barriers shall be a minimum of 42 inches high, and shall be constructed in a manner that discourages pedestrians from the crossing the barrier (Source =MMRP).

Golf course special event marshals shall be empowered to enforce access restrictions and allow positive incentives, such as the free replacement balls, which will further discourage access for the purposes of ball retrieval. Spectators at competitive events shall be directed to specifically designated gallery areas outside the dune ESHA area that will be planted with hardy dune species, such as dune sedge, or otherwise designed to accommodate such periodic heavy use. Spectator access to restored and created dune habitat areas will be also be prevented by means of temporary fences erected outside habitat areas and/or continuous presence of security personnel (Source = DMF/PDP Dunes Report).

The new trail system shall be designed to avoid seacliff buckwheat plants and incorporate fencing to ensure that people and animals stay on the trails and within developed/trail areas (Source MMRP).

Drainage Control

All surface and subsurface drainage related to Holes 15, 16, and 17 turf and rough shall be routed to the Spyglass drainage system and away from the Signal Hill Dune ESHA to avoid inadvertent irrigation of the native dune vegetation. Means to implement could include, but are not limited to, creation of favorable

surface topography, interceptor trenches, and subsurface drains (Source =MMRP).

Irrigation Control

Irrigation systems shall be designed to ensure that, under windless conditions, restored dune habitat is not subject to substantial overspray. Irrigation of the Hole No. 15 tees, the No. 16 tees and the portions of Hole No. 17 within 50 feet of the Dune ESHA shall avoid inadvertent irrigation of native vegetation within the Signal Hill Dune ESHA by using directional irrigation, small-scale irrigation, other means and/or operational controls such as irrigating only when winds are low and directed inland away from the dune ESHA area (Source =MMRP.

Pesticide Control

Application of pesticides to the Hole No. 15 tees, the No. 16 tees and the portions of Hole No. 17 within 50 feet of the Dune ESHA shall be by hand, unless the Director of Planning & Building Inspection approves otherwise after demonstration by multi-year monitoring that pesticide and fertilizer application is having no substantial adverse effect on native vegetation within the Signal Hill Dune ESHA. Pesticides shall only be applied in the area within 100 feet of the ESHA boundary when wind speeds are less than 10 mph. Drift-reduction agents shall be used which thicken pesticides and reduce the potential to form droplets smaller than 150 microns. Examples of drift reduction agents include Chem-Trol, Intac, Lo-Drift, Nalco-Trol, Nalco-Trol II, StaPut, Wind-Fall, Arborchem 38-F (Bellinger et al. 1996). Records of pesticide applications shall be kept, including information about quantity applied, method used, and wind speed at the time of application (Source =MMRP).

Fertilizer control

Slow-release nitrogen fertilizers shall be employed in areas upslope of the ESHA to prevent excess nitrogen pollution of the ESHA during drier months and whenever feasible (Environmental Protection Agency 2001). Fertilizers should not be applied within 200 feet of the ESHA in cool rainy weather as feasible, as reduced plant growth rates and microbial activity and increased runoff potential (University of Minnesota Extension Service 1997) will increase the probability of contamination of the ESHA. When fertilizers are applied within 200 feet in cool rainy weather, small increments of quick-release nitrogen (sprayed as a liquid directly to plant tissue), provided caution is used to avoid any resultant runoff into the ESHA area. Phosphorus fertilizer which is applied to areas upslope of the ESHA is to be watered in immediately following application to prevent them from being washed into the ESHA in surface runoff. When phosphorus fertilizers have not yet been incorporated into the soil, they may be carried away from the application site with sediment runoff (University of Minnesota Extension Service 1997) (Source =MMRP).

Landscaping Controls

Only native landscaping is to be used in the area immediately surrounding the tee boxes at Hole No. 15 and Hole No. 16 except for the golf access path. The golf course landscaped area between the Hole No. 17 green and the Dune ESHA area shall be a maximum width of 25 feet. Non-native species shall be removed from the area between the No. 15 and No. 16 tee boxes and the Dune ESHA boundary and between the No. 17 landscaped area around the green. These areas along the ESHA edge shall be restored using native dune plant species (Source =MMRP).

Actions by Management Area

Management areas have been delineated in the DMF/PDP Dunes Report (Zander 2001) within the Signal Hill Dune/Spyglass Pit area to address site-specific dune restoration, enhancement and management objectives particular to each area (Figure 2). The management objectives for each area will be used to develop a set of specific management prescriptions and performance standards to be implemented by the Pebble Beach Company in perpetuity, monitored by the third-party consultant during the 20-year resource management period, and monitored by Pebble Beach Company after 20 years. These management objectives are intended as guidelines and not as fixed criteria. As experience with dune restoration and management techniques and golf course use in the area increases over time, these objectives may be adapted through proposal in Annual Work Plans in response to new techniques, information and/or changing circumstances. Please refer to the DMF/PDP Dunes report for further details about coastal dunes in the project area.

Dune Crest & Upper Slopes of Signal Hill

The systematic removal of iceplant by both chemical and mechanical means is a priority for this management area. Other non-native species should also be eliminated over time but the reduction in the amount of cover of iceplant will provide opportunity for the recolonization and establishment of natives that currently occupy the dune crest area and contribute significantly to its stability and habitat values. Because of the relatively dense cover and reduced exposure throughout most of this area, aggressive dune stabilization measures are not as critical as in other areas. Similarly, the need for the introduction of plant materials for revegetation is reduced because of the ample source material for natural recruitment and recolonization once competition from iceplant is reduced. More exposed, open sand areas on the dune crest and upper flanks may require modification to this management approach following principles similar to those for the south slope and west slope of Signal Hill (see below).

Equally important for this management area is the definition and management of access, particularly associated with the Green Trail and its branches through the dune crest. Main trails should be clearly delineated and maintained while unplanned footpaths, eroded areas and blowouts should be eliminated and restored to dune habitat. Pedestrian and equestrian traffic should be actively directed onto designated trails using a combination of signs, barriers and

boardwalks through more sensitive dune sand areas. An official trail map of Signal Hill and informative materials describing its sensitivity should be available at key entrance points to the dune.

South Slope of Signal Hill

As with the Dune Crest management area, and all other areas of natural sandy substrates on Signal Hill, eradication of non-natives is a priority. In addition to iceplant European beach grass also poses a problem in this area, especially at the interface between the dune edge and the Cypress Point Golf Course. Blanket application of herbicide is not recommended in this management area because of the frequent association of coastal scrub and dune species, including special-status species, with iceplant, beach grass and other invasives. Except where large masses of iceplant are clearly dominant, spot-spraying or hand removal are the preferred methods of removal. Dead material can remain as mulch in heavier coastal scrub-dominated areas, but should be removed in more open sandy and dune strand areas. Active re-introduction of appropriate native plant materials should occur in areas where non-natives have been removed, but natural colonization should be the preferred method of vegetation establishment in this management area. Some introduction of special-status species, propagated from site-specific source material, could be considered. Periodic control and maintenance of eroded areas and blowouts will also be required in this area, but major stabilization or structural improvements should not be necessary due to the area's limited accessibility and relatively better protection from the prevailing offshore winds. Directional signage along the Green Trail at the top of the management area should be provided to control cross-country traversing through the area.

West Slope of Signal Hill

Eradication of non-natives, primarily iceplant, is also a priority here. Broadcast spraying is acceptable where iceplant mats occupy otherwise barren sandy substrates, but stabilization measures, such as early establishment of vegetative windrows and straw crimping, should be planned into the eradication program to prevent the movement of sand in the absence of the stabilizing effects of iceplant. Spot-spraying or hand removal will be necessary where coastal scrub and dune species mix with iceplant. As in the South Slope management area, dead material can remain as mulch in heavier coastal scrub-dominated areas, but should be removed in more open sandy and dune strand areas. Active re-introduction of appropriate native plant materials including dune stabilizing species suited to more open sand areas like beach sagewort (*Artemisia pycnocephala*), beach knotweed *(Polygonum paronychia*), dune bluegrass ***(****Poa douglassii*) and special-status species such as Menzies' wallflower and Tidestrom's lupine should occur in areas where non-natives have been removed.

Trail identification and maintenance through this area is important. With the Green Trail passing directly through the area and its frontage along Signal Hill Road, the West Slope management area is subject to inappropriate access and trail degradation. The Green Trail, especially at its upper entrance to the area, needs some structural improvement to arrest the gullying and erosion associated with it. Iceplant that currently stabilizes the slopes of this section of trail should be replaced by a both a combination of structural erosion controls, such as

matting, snow fencing, and wooden retaining walls and hardy coastal scrub vegetation, such as mock heather (*Ericameria ericoides*) and dwarf coyote brush (*Baccharis pilularis*). Other trails through the area should be clearly designated and an interpretive boardwalk trail could be developed off of Signal Hill Road or Spyglass Hill Golf Course. Periodic control and maintenance of eroded areas and blowouts will also be required in this area.

Northwest Sand Swale

Removal of iceplant and other non-native invasive species and sand stabilization are the key management objectives of this area. Broadcast spraying in most of the area is the method of choice since very little native dune habitat remains. Even in those areas known to support special-status plants, such spraying can be completed prior to their emergence in the spring or after they have completed their life cycle in the summer without substantial consequences on the populations. Sand stabilization, however, must be considered prior to implementation of the spraying program. Without iceplant, sand movement in this area could be damaging. Straw crimping and seeding with an appropriate native nurse crop, such as beach sagewort, may be an appropriate method for both sand stabilization and introduction of native dune species in this management area. Vegetative windrows with woody materials, such as mock heather and coyote brush, could also help stabilize the area. Supplemental irrigation and possibly overhead spray may be necessary to keep the sand moist until vegetation is established. A combination of methods and techniques may be applied and adapted in response to interim results. Debris, including clay shards from the gun club, should also be removed in this area. Because of its inherent instability, no pathways or trails should be routed through the area, but boardwalks through the created dune landforms associated with the golf course and viewing platforms above the area may be created to overlook this area.

Northwest Disturbed Dune

Non-native species eradication in this management area will be difficult because of the mixed vegetation that has colonized the area since abandonment of the mining operation. On one hand, physical removal of large acacia trees and chemical removal of large clumps of iceplant and pampas grass will be relatively straightforward and should proceed as a first step. On the other hand, pioneering elements of both dune strand and dune scrub vegetation along with Monterey pines have begun to colonize the area. In addition, both Tidestom's lupine and beach layia occur on remnant sands in the area. Consequently, spot spraying or hand removal of non-natives is the preferred method of non-native plant control.

While sandy substrates presumably once characterized the entire area, reestablishing this condition throughout the area would probably not be feasible and would likely create more problems than it would resolve. Limited sand placement will be included on the edges of the area as part of the new dune landform creation associated with the golf course. However, the theme for this management area should remain as a coastal scrub-dominated habitat with pioneering species and Monterey pines comprising the dominant vegetation. An active plant establishment program along those lines should be developed for the area. In addition, various soil treatment/scarification techniques should be evaluated and revegetation measures adapted in response to those techniques.

North Pine Forest

The forest in this area is fragmented but more or less intact and should be managed as a productive landscape element in the context of golf course development and similar forest areas throughout the greater Del Monte Forest. Nonnative and ruderal species such French broom, acacias, European grasses and other weeds should be regularly eliminated, both to maintain the integrity of the forest environment and to reduce the potential sources for colonizing the adjacent dunes. Clearance of the understory should be kept to the minimum necessary for golf play. The health of natural Monterey pine and associated species regeneration should be monitored and replacement plantings pursued. The small area of remnant dune along Spyglass Hill Road should be restored in keeping with the management objectives of other natural sandy substrate areas and incorporated into the management of the newly created dune landforms associated with the golf course. Access to and through this management area should be directed through the use of signs and clearly delineated trails.

Developed Golf Course Area

No designated restoration areas will be located within the perimeter of the golf course; dune landforms created within the perimeter of the course shall be regarded and managed as landscape features rather than habitat mitigation. Consequently, their management requirements will be less environmentally stringent than strictly-defined restoration areas. Access to and through them will be less constrained by habitat considerations, the plant palette will tend toward more ornamental but locally indigenous and otherwise utilitarian native dune species and they will be maintained as landscape features. Nonetheless, the species mixes will be compatible with native dune restoration objectives and the source of non-native invasive weeds will be virtually eliminated. The irrigation system will be designed to ensure that, under windless conditions, restored dune habitat is not subject to substantial overspray. The topography of the adjacent golf areas will be graded to collect and divert all surface runoff, both from irrigation and from rain, away from the restored dunes. The drainage system shall be located in the golf area rather than in the restored dune habitat. The logical traffic pattern of golfers and the movement of spectators will be oriented away from restored dune areas, errant golf ball recovery will be disallowed in restored dune areas and marshals, signage, and positive incentives will all be used to emphasize these standards.

Monitoring

Monitoring shall be done annually by an independent party under contract to Monterey County as part of the implementation of the SSRMP for this location.

Monitoring of the Dune ESHA will be conducted annually for the first ten years and then at five-year intervals after ten years and shall include:

- native vegetation;
- non-native species;

- golf course irrigation;
- pesticide and fertilizer use;
- access controls and trail use; and
- the indirect effects on the Dune ESHA, in particular on the edge of the Dune ESHA directly adjacent to the Proposed Golf Course (Source = DMF/PDP Dunes Report, MMRP).

Monitoring for special-status dune species shall be done April through June (specific timing may vary year to year) annually until the success criteria are met. Monitoring shall record the location and total number of individuals that occur within 100 feet of the edge of any portion of the golf course and the number within newly established populations (Source = EMIP).

Percent cover data for plants will be collected from permanent transects located in each management area to cover all habitat types from the coastal scrub through the coastal strand habitat to Monterey pine forest. The location, length and spacing of these transects and exact methods of data collection shall be developed as part of a baseline assessment for the SSRMP. This baseline assessment will document existing conditions, establish transect locations, develop a restoration schedule and generally set the standards for subsequent monitoring and reporting (Source =DMF/PDP Dunes Report).

Success Criteria

The following criteria will be used to determine restoration success:

- absolute cover at least 70% that of a suitable reference site, or of an offsite natural dune with vegetation composed of similar species to those used in dune habitat revegetation;
- no more than 10% relative cover of nonnative species and no more than 5% relative cover of any invasive species (e.g., ice plant, pampas grass, gorse, acacia);
- at least 70% of native species characteristic of dunes or dune scrub as are found in the reference site(s);
- dominance of the dune vegetation by at least three of the five native species of highest relative cover on the reference sites; and
- establishment of two additional subpopulations of each of the four special-status species, of at least 250 individuals each or the average (by species) found in the separate occurrences lying within 100 feet of the golf course boundary, whichever is less (Source MMRP, EMIP).

Restoration activities shall be conducted until the performance criteria are met in three out of five successive years after completion of restoration activity. After the performance criteria are met, the Pebble Beach Company shall be responsible for periodic monitoring on a frequency no greater than every five years. If periodic monitoring identifies that the dune habitat within the conservation area

no longer meets the restoration performance criteria, then remedial activity including the restoration measures in the dune plan shall be conducted until the performance criteria are met again in three out of five successive years (Source = MMRP).

Contingency/Remedial Action

If monitoring identifies that substantial adverse change in dune vegetation adjacent to the golf course is occurring, remedial action shall include change in golf course maintenance practices, including irrigation, pesticide, fertilizer, mowing, and seeding, as necessary to address the identified effects. If independent monitoring determines that changes in golf course maintenance practices are insufficient to remedy the identified effects, then the Pebble Beach Company shall be responsible to redesign and modify Holes No. 15, 16, and 17 to provide for an adequate buffer between all landscaped portions of the golf course, including the rough, and the Dune ESHA to address the identified adverse effects. This buffer shall be a minimum of 50-feet in width, unless the Director of Planning & Building Inspection determines that a buffer of less width will address the identified adverse effects after consultation with the resource management team that will be advising Monterey County on Site-Specific Resource Management Plan implementation (Source = MMRP).

Bristol Curve Conservation Area

Goals

- Maintenance of extant Monterey pine forest health
- Restoration of Monterey pine forest to abandoned portions of Bristol Curve
- Maintenance of the Yadon's piperia population pursuant to the requirements of the final Piperia Plan
- Maintenance of other special-status species in the context of forest management
- Control of non-native invasive species
- Control of indirect effects of the adjacent new golf course

All forest habitat in open space areas shall be managed according to Category IV policies of the OSAC Management Plan (LSA 1983).

Actions

- **Monterey pine forest maintenance** – The extant forest shall be maintained in accordance with the habitat prescriptions for Monterey pine forest in

Chapter 3 including control of non-native invasive plant species. The SSRMP shall establish specific management goals for this area (Source = MMRP).

- **Monterey pine forest restoration** – The abandoned portions of Bristol Curve, as well as any portions of the fire roads that may be abandoned shall be restored by planting of Monterey pine forest native overstory and understory comparable to that extant in adjacent areas including Yadon's piperia and Hooker's manzanita (Source = Master RMP).
- **Yadon's piperia transplantation** – Yadon's piperia shall be transplanted from nearby removal areas into abandoned portions of Bristol Curve as part of the restoration of Monterey pine forest (Source = MMRP).
- **Other special-status species** – Planted Hooker's manzanita and the existing Hooker's manzanita occurrence shall be monitored as described in Chapter 4. Dead trees and snags shall be retained where feasible as pallid bat habitat as described in Chapter 4.
- **Indirect Effects** – The edge of the conservation area adjacent to the golf course and the realigned Stevenson Drive shall be monitored as described below and remedial action taken if forest degradation of this edge is identified (Source = Master RMP)

Monitoring

- **Monterey pine forest and special-status plants** - Site-specific monitoring regimes will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, Yadon's piperia, and Hooker's manzanita.
- **Indirect effects** – Vegetation monitoring shall be conducted along the edge of the new golf course and the edge of the realigned Stevenson Drive annually for the first five years and at five year intervals thereafter. At least three transects shall established and monitored prior to project construction to establish a baseline. Vegetation monitoring shall follow the protocols established for Monterey pine forest and Yadon's piperia. Site-specific monitoring regimes will be developed in the SSRMP based on the guidance described in this document (Source = Master RMP).

Success Criteria

Site-specific success criteria will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, Yadon's piperia, and other special-status species.

Contingency/Remedial Action

- **Monterey pine forest and Hooker's manzanita** - Site-specific contingency actions will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest and Hooker's manzanita.
- **Yadon's piperia** - Contingency action regarding Yadon's piperia is as noted in Chapter 4.
- **Indirect Effects** – If monitoring identifies that the forest edge is being degraded due to adjacent golf course operations or Stevenson Drive, the forest edge shall be restored by supplemental plantings, more intensive vegetation management, and/or alteration of maintenance methods of the adjacent development (Source = Master RMP).

"Forest" Golf Course Resource Management Areas

Goals

- Maintenance of forest health within retained forest and restoration of 15 acres of Monterey pine forest in currently unforested areas
- Maintenance and expansion of retained population of Yadon's piperia through transplantation, enhancement, and resource management activity;
- Maintenance of a Pacific Grove clover occurrence within the context of the new golf course
- Protection and enhancement of wetland and seasonal pond functions
- Protection of foraging and dispersal habitat for California red-legged frogs
- Control of indirect hydrologic and water quality effects of new golf course on adjacent natural areas

Actions

- **Monterey pine forest** - Approximately 55 acres of forested lands within the proposed new golf course will be retained and will be managed following ecological principles articulated in the Pebble Beach Company's resource management plans, the EMIP, and the habitat management guidelines in Chapter 3. Approximately 15 acres of new replanted areas of pines will abut the golf course. Plant materials, especially special-status plants like Yadon's piperia, will be salvaged prior to grading and introduced into the newly recontoured and rehabilitated areas. Landscape management guidelines and appropriate forest maintenance standards will be established in the areas surrounding the golf course to maintain these forest elements in a natural condition (Source = DMF/PDP Monterey Pine Forest Report).

- **Yadon's piperia transplantation and enhancement** – Implementation of the final Piperia Plan including salvage of Yadon's piperia at the proposed golf course and transplantation within a proposed minimum of 20 acres of suitable retained forest at Area MNOUV not containing "occupied habitat". This work shall be accomplished in accord with guiding principals contained within the Piperia Plan. Enhancement and maintenance of the transplantation areas will occur such that they contain self-sustaining populations of piperia (Source = MMRP).

- **Yadon's piperia resource management**. The final SSRMP shall include the following, as appropriate, unless the RMT determines that alternative measures would be more effective to sustain Yadon's piperia (Source =MMRP):

  - Conduct annual monitoring and removal of invasive non-native species.

  - Restrict maintenance activities in areas that support Yadon's piperia or time maintenance activities to avoid or reduce the effect on the plant , such as conduct maintenance outside the leafing and flowering period (February to August)

  - Control irrigation and site drainage to avoid excessive runoff.

  - Adopt integrated pest management methods to reduce pesticide drift and runoff.

  - Adopt a fertilizer management plan to avoid increased drift and runoff of excess fertilizer into piperia areas.

  - Protect the populations in the Proposed Golf Course from unintended disruptions by pedestrians and golfers by fencing the perimeter of the adjacent retained forest or otherwise indicating this area as out of play. If permanent fencing or barriers are used, they shall be designed to allow for wildlife movement while deterring casual human ingress.

  - Temporary protective fencing shall be used during large golf tournaments/events. This fencing shall be extended to the period of the species' leafing, blooming and fruiting if it is determined by the RMT that this is required.

  - Develop and implement an environmental awareness education program. The Pebble Beach Company shall retain a qualified biologist to conduct a mandatory environmental awareness education program for construction and maintenance personnel. The program would cover all sensitive biological resource issues, mitigation measures, and permit conditions. The training program would be provided annually and would be mandatory for all construction and maintenance management and personnel. The program will cover measures that workers can implement to avoid and reduce the impact of their activities on Yadon's piperia

  - Close and restore informal trails within existing piperia habitat.

  - Coordinate management of existing piperia populations with management for other forest resources.

- **Pacific Grove clover** -Provide a habitat management area for Pacific Grove clover that is as large as the extant population to be identified in 2005 surveys and that contains a 25-foot buffer (Source = MMRP).
  - Define specific restoration, management and enhancement methods for the Pacific Grove clover population prior to final design of the Proposed Golf Course, and incorporate these methods into the site-specific RMP, Annual Workplan and Monitoring Report.
  - A survey for Pacific Grove Clover shall be conducted in spring 2005 of all potential habitat areas within Area MNOUV, including the entire existing equestrian center, the entire Collins Field, and the driving range. This survey shall be conducted by an independent qualified biologist during the optimal identification period. The identified population extent, in terms of occupied habitat acreage, shall determine the minimum size of the habitat management area. The habitat management area shall be established in a location supporting at least 25% of the population and encompassing at least 25% of the occupied habitat area of Pacific Grove clover in 2005.
  - If feasible, the habitat management area shall be separate from any fairway, tee, or green, but may be used as a mandatory "fly-over" provided the area is designated out of play. If feasible, a 25-foot buffer area shall be established from the nearest golf course managed green, fairway, tee, or rough in order to reduce herbicide drift and encroachment of golf course grass or rough species. This buffer area may contain Pacific Grove clover plants and habitat, but those plants and habitat shall not be included in the 25% population and 25% habitat minimum amounts required for the habitat management area. The determination of feasibility shall be made by the Director of Planning & Building Inspection based on review of the 2005 surveys, the applicant's proposed golf course design, and the proposed habitat management area.
  - If it is determined to not be feasible to separate the habitat management area from the golf course proper, the habitat management area may be located in part or in whole within the field of play.
  - The success criteria for this mitigation will be the same regardless of location, and, as described below, if habitat management within the golf course proper is insufficient to meet the success criteria, then remedial action will be required.
  - The Site-Specific RMP shall apply the restoration, management, and enhancement methods contained within the Pebble Beach Company's DMF/PDP Special Status Species Report (Zander 2001) to the identified habitat management area and shall define implementation steps and timing.
- **Wetlands and Seasonal Pond** – The following is drawn from DMF/PDP Wetlands Report (WRA 2003) which also provides further details about wetlands management and the MMRP. In addition, wetland and riparian habitat should be managed according to Category VIII policies of the OSAC Management Plan (LSA 1983).

- **Design** – The golf course shall be redesigned such that no direct disturbances, other than those associated with potential restoration and enhancement activities, occur within the identified wetlands. The golf maintenance trail and all pedestrian walkways at the Proposed Golf Course shall provide for clear-span bridging, boardwalks or the trails/walkways shall be rerouted to avoid all existing wetlands. Boardwalks shall only be used when the wetland crossing is presently not vegetated; hydrologic connections shall be maintained and improved where feasible.

- **Wetland A** - Buffer infringements in this area include tee box 11 and a paved cart path. Because this wetland is currently supported by unfiltered roadway runoff, its water quality could be improved by a program of regular street cleanings prior to the rainy season. It has low plant diversity, so it will be enhanced by planting additional native species similar to the more diverse plant communities found in the Huckleberry Hill Preserve. Besides contributing to plant community diversity and potential wildlife use, additional plants will enhance the wetland's nutrient cycling/water quality improvement functions. Presence of exotic species will be monitored and control measures undertaken if necessary.

- **Wetlands B1 and B2** - Portions of Hole 11, specifically the green, fairway, and sandtrap, infringe into the buffer adjacent to these wetlands. Water quality to these wetlands could be improved by the regular street cleaning of adjacent roads. These areas have low plant diversity, thus plant community diversity, potential wildlife use, and nutrient cycling/water quality improvement functions will be enhanced by planting additional native species similar to the more diverse plant communities found in the Huckleberry Hill Preserve. Presence of exotic species will be monitored and control measures undertaken, if necessary.

- **Wetlands C and D**- These wetlands have low-intermediate plant diversity, so plant community diversity, potential wildlife use and nutrient cycling/water quality improvement functions will be enhanced by planting additional native species similar to the more diverse communities of Huckleberry Hill. Presence of exotic species will be monitored and control measures undertaken if necessary.

- **Wetlands F1, F2, F3, G, H, and I** - These wetlands have low-intermediate plant diversity, so plant community diversity, potential wildlife use and nutrient cycling/water quality improvement functions will be enhanced by planting additional native species similar to the more diverse communities of Huckleberry Hill. Exotic species (periwinkle and iceplant in F3; pampas grass in G, H, I) will be actively managed to decrease non-native plant cover.

- **Wetlands J and K** - Plant community diversity, potential wildlife use and nutrient cycling/water quality improvement functions will be enhanced by planting additional native species similar to the more diverse communities of Huckleberry Hill. Presence of exotic species will be monitored and control measures undertaken if necessary.

- **Wetlands L1, L2, and M** - Plant community diversity, potential wildlife use and nutrient cycling/water quality improvement functions will be enhanced by planting additional native species similar to the more diverse communities of Huckleberry Hill. Presence of exotic species will be monitored and control measures undertaken if necessary.
- **Wetland N** - Plant community diversity, potential wildlife use and nutrient cycling/water quality improvement functions will be enhanced by planting additional native species similar to the more diverse communities of Huckleberry Hill. Presence of exotic species will be monitored and control measures undertaken if necessary.
- **Wetland O** - Plant community diversity, potential wildlife use and nutrient cycling/water quality improvement functions will be enhanced by planting additional native species similar to the more diverse communities of Huckleberry Hill. Presence of exotic species will be monitored and control measures undertaken if necessary.
- **Seasonal Pond** - The existing ecological setting of the seasonal pond at the Proposed Golf Course shall be protected from all grading, selective clearing, understory clearing, hydrological modification, and indirect effects from the golf course. A 40-foot forested buffer consisting of existing native understory and overstory shall be maintained around the seasonal pond. The purpose of this buffer is to protect the seasonal pond from significant disruption of its habitat value. In addition to attenuating overland flow and water quality effects, such a buffer can also maintain mid-day shading to protect the pond from substantial temperature variations from that at present. The pond and buffer area shall be designated out of play. The pond and buffer area shall be dedicated to the DMFF or an equivalent organization approved by the Planning Director. As part of the wetland management plan, the existing hydrologic regime of the pond and Drainage I shall be maintained. The buffer area shall be monitored for non-native vegetation and such vegetation will be removed when found. A bridged crossing for the golf maintenance trail over Drainage I shall be provided (Source =MMRP).

- **California red-legged frog** –The measures described in Chapter 4 shall be implemented.
- **Hydrology** - The measures described in Chapter 3 for wetlands, including maintenance of hydrologic balances shall be implemented.
- **Water Quality** - The measures described in Chapter 3 for water quality shall be implemented.

Monitoring

Site-specific monitoring regimes will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, Yadon's piperia, wetlands, California red-legged frog, and water quality.

- **Pacific Grove clover** - Control plots and monitoring regimes shall also be identified in the SSRMP. The success criterion described below is to be met for three successive years after establishment of the habitat management area to achieve initial success. Following demonstrated initial success, the habitat management area shall be monitored every three years over a nine year-period to demonstrate sustained success. The Pebble Beach Company shall be responsible for funding the monitoring by an independent third-party and implementing the management of this area for the minimum 20-year period of resource management, and beyond if determined necessary by Monterey County to sustain this species (Source = MMRP).

Success Criteria

Site-specific success criteria will be identified in the SSRMP based on the guidance described in this document for Monterey pine forest, Yadon's piperia, wetlands, California red-legged frog, and water quality.

- **Pacific Grove clover** - The success criterion is to achieve a number of Pacific Grove Clover plants in the management area at MNOUV that is no less than 90% of the population expectation relative to plant counts in the 2005 baseline year when compared to control plots at other Pacific Grove Clover populations (see example in table below).

Site	Baseline # plants in 2005	# plants in 2006	# plants in 2007
Management area	1000	450	500
Control sites (off-site)	600	300	480

In this example, even though the population in the management area in 2006 would be 45% of the 2005 baseline, the success criterion has been met because control sites were found to support 50% of their baseline population and 45% is 90% of 50%. In 2007 the success criterion would not have been met because the management area population would be 50% of the 2005 baseline while the control sites would be at 80% of baseline.

The success criterion is to be met for three successive years after establishment of the habitat management area to achieve initial success. Following demonstrated initial success, the habitat management area shall be monitored every three years over a nine year-period to demonstrate sustained success. The applicant shall be responsible for funding monitoring by an independent third-party and management of this area for the minimum 20-year period, and for additional time if determined necessary by Monterey County to sustain this species. (Source = MMRP).

Contingency/Remedial Action

- **Wetlands** – As discussed in Chapter 3
- **Yadon's piperia** – As discussed in Chapter 4.
- **California red-legged frog** – As discussed in Chapter 4.
- **Pacific Grove clover –** If the success criteria cannot be met for established management area over the monitoring period identified above, then the relevant portion of the golf course shall be redesigned, regraded, or otherwise altered to provide for a segregated resource management area in which management of the area can be solely focused on the sustainability of the clover occurrence to the exclusion of any golf course management prescriptions and practices (Source = Master RMP).

Spanish Bay Driving Range Buffer and Conservation Area

Goals

- Maintenance of forest health
- Protection and enhancement of wetland functions
- Control of potential predators of California red-legged frogs
- Control of indirect water quality effects

All forest habitat in open space areas shall be managed according to Category IV policies of the OSAC Management Plan (LSA 1983).

Actions

- **Monterey pine forest -** Approximately 12 acres of forested lands around the perimeter of the proposed new driving range will remain undeveloped and will provide habitat continuity with adjacent preserved lands in Area B. Landscape management guidelines and appropriate forest maintenance standards, especially regarding the use of native landscape materials and controlling the establishment and spread of non-native invasive plant species like French broom, will be established in the remaining natural areas surrounding the new range (Source = DMF/PDP Monterey Pine Forest Report). These areas shall also be managed in accordance with the guidance in Chapter 3.
- **Wetlands** – Shall be managed as describe in Chapter 3 for wetlands in conservation areas (Source = DMF/PDP Wetlands Report)

- **California red-legged frog** – Although California red-legged frogs have not been found in the site wetlands, the site could provide habitat for predators of California red-legged frogs, such as bullfrogs. Prepare a predator control and monitoring plan for operations at the Spanish Bay Driving Range and include in the SSRMP (Source = MMRP). If California red-legged frogs are later identified at this location, new additional habitat management measures will be identified by the third-party monitoring consultant, the RMP, the Pebble Beach Company, and Monterey County to sustain frogs at this location (Source = Master RMP).
- **Pallid Bats** - Dead trees and snags shall be retained where feasible as pallid bat habitat as described in Chapter 4.
- **Water Quality** – Shall be managed as described in Chapter 3.

Monitoring, Success Criteria, and Contingency/Remedial Actions

Site-specific monitoring regimes, success criteria, and contingency actions will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, wetlands, water quality, California red-legged frogs and pallid bats.

New Equestrian Center Resource Management Areas

Goals

- Maintenance of forest health within retained forest
- Protection and enhancement of wetland functions
- Control of indirect water quality effects of equestrian center operations
- Control of indirect water quality effects of equestrian center special events
- Maintenance of other special-status species
- Control of non-native invasive species
- Environmental education of center users and visitors

Actions

- **Monterey pine forest** - The retention of 13 acres of native forest on the edges of the new facility will act as a buffer to the adjacent Huckleberry Hill Natural Area, provide an opportunity for restoration and ultimately add to the Huckleberry Hill preservation acreage. Degraded areas within the Huckleberry Hill preserve, including an abandoned skeet range and several unpaved roads that are not part of the fire road system, provide additional

opportunity for the reestablishment of planted Gowen cypress removed from the quarry area. An active non-native species eradication program associated with the day to day Equestrian Center operations could greatly improve the present degraded quality of the habitat on the periphery of the quarry area. Controls on equestrians and other users of the Huckleberry Hill trail system are proposed so that increased use does not result in habitat degradation in the HHNA (Source = DMF/PDP Monterey Pine Forest Report). These areas shall also be managed in accordance with the guidance in Chapter 3.

- **Yadon's piperia** – The site shall be surveyed in 2005. If piperia are found, they shall be avoided and the retained habitat shall be managed in accordance with the guidance in Chapter 4.
- **Other special-status species -** Manage pine rose and pallid bat habitat as described in Chapter 4. Although California red-legged frogs have not been found in the site wetlands, the site could provide habitat for predators of California red-legged frogs, such as bullfrogs. Prepare a predator control and monitoring plan for operations at the New Equestrian Center and include in the SSRMP (Source = MMRP). If California red-legged frogs are later identified at this location, new additional habitat management measures will be identified by the third-party monitoring consultant, the RMP, the Pebble Beach Company, and Monterey County to sustain frogs at this location (Source = Master RMP).
- **Wetlands –** The following shall be implemented:
  - **Design and Wetland Buffers -** .A portion of the Lower Sawmill area wetland is considered an ESHA and shall be provided with a 100-foot buffer from all proposed activities. The seasonal wetland portion of the Lower Sawmill wetland shall be provided with a 25-foot buffer. A permanent barrier, such as a cable or split-rail fence, shall be placed around the resultant Lower Sawmill wetland buffer to prevent access. The area of hydrophytic vegetation in the drainage north of the New Equestrian Center shall also be avoided by use of a clear-span bridge (Source = MMRP).
  - **Wetlands Hydrology –** Shall be managed as described in Chapter 3.
  - **Wetlands S-B, S-C, S-D, S-E, and S-F** - Plant diversity in these wetlands is low, thus planting additional native species, similar to those found in the more diverse communities of Huckleberry Hill, will occur. The entire area has been adversely affected by exotic species, primarily French broom, and will be actively managed to decrease non-native plant cover. All horse stables and corrals will drain away from wetlands (Source = DMF/PDP Wetlands Report).
- **Water Quality Management for Operations** - Runoff generated from the new equestrian center has the potential to contain high concentrations of organic matter, ammonia, and other nutrients, and harmful pathogens associated with animal wastes, if not properly controlled. Management measures used to control the discharge and impacts from animal wastes are normally accomplished through various site design and housekeeping

measures. Proposed measures for the project will include the following (Source = DMF/PDP BMP Plan):

- Clean manure from uncovered land, including arenas and grass staging areas, on a daily basis.
- Store collected manure and used shavings in covered, concrete containment structures. The containment structures are shown in five locations on Figure EQ-3 of the Del Monte Forest Preservation and Development Plan. Each containment structure is divided into two compartments; one compartment will store manure, while the other will store used shavings. The containment structures will be emptied twice per week, with the waste being disposed of at an appropriate off-site disposal facility.
- Divert roof downspouts and other runoff around manure storage areas and animal activity areas.
- Incorporate vegetated buffer/filter strips around the site perimeter.
- Provide downstream detention storage/treatment basin.
- Coordinate temporary trail closures for erosion between the Pebble Beach Company, the Pebble Beach Equestrian Center, and the Pebble Beach Riding and Trail Association (Source =MMRP).

- **Water Quality Management for Special Events -** The Site-Specific Resource Management Plan for the New Equestrian Center and the HHNA shall contain the following Best Management Practices for control of horse waste during special events (Source = MMRP):
  - Bedding, such as shavings and/or straw, shall be placed in all temporary stable facilities, including sleeping and washing areas, during special events. Manure and bedding waste shall be collected from temporary stable facilities within one day of the end of the special event and transported to an approved disposal facility or for use off-site at organic farms as fertilizer.
  - Solid manure waste in special event outdoor use areas shall be removed daily. Manure may be stored under cover at a dedicated bunker area and transported at the end of the special event to an approved disposal facility.
  - Temporary stable facilities shall not be located within 100-feet of the wetland in the Lower Sawmill.
  - The detention basin to be installed near the wetland and the grass filter strip area, per the BMP plan, shall also be designed to contain runoff from temporary stables and temporary special event use areas. During special events, the detention basin shall operate as a containment basin and shall not drain into the wetland and Sawmill Gulch. Instead, the detention basin shall be cleaned out after the end of each special event and the accumulated material transported to an approved disposal facility or for use off-site at organic farms as fertilizer. Only after the basin is

cleaned out, shall drainage again be routed into the wetland and Sawmill Gulch.

- **Weed Control** - Control potential spread of non-native invasive plant species in hay at the hay barn and other facilities at the New Equestrian Center into the surrounding HHNA by use of hay bins/troughs, watering, and routine cleanup of stray hay. Once the following conditions are met, require use of certified weed-free feed for all horses stabled at the New Equestrian Center:
  - A certification process is adopted by the California Department of Food and Agriculture for weed-free feed;
  - Use of weed-free feed is required for all permittees by the US Department of Agriculture, Forest Service; and
  - A certified weed-free feed supplier is located within 50 miles of the Del Monte Forest.

  Following implementation of weed-free feed requirements at the New Equestrian Center, encourage all guests to feed their horses weed-free feed for two days prior to bringing horses to the Del Monte Forest for boarding or equestrian events, and provide information to all horse owners attending special events about suppliers of weed-free feed (Source = MMRP).

- **Environmental Education** - Incorporate environmental education about the sensitive resources of the HHNA and the Green Trail to all equestrian center user, trail users, and attendees at special events including measures that individuals can implement to lower their impact such as not hitching horses to trees, crossing drainages at marked crossings, and staying on designated trails and use of certified weed-free feed when such feed becomes commercially available.

Monitoring, Success Criteria, and Contingency/Remedial Actions

Site-specific monitoring regimes, success criteria and contingency/remedial actions will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, Yadon's piperia, other special status species, wetlands, water quality, and non-native invasive species.

Preservation Area B/Spanish Bay Employee Housing Employee Housing Resource Management Area

Goals

- Maintenance of forest health in preserved forest

- Enhancement of suitable Yadon's piperia habitat
- Maintenance of other special-status species
- Protection and enhancement of wetland functions

All forest habitat in open space areas shall be managed according to Category IV policies of the OSAC Management Plan (LSA 1983).

Actions

- **Monterey pine forest** – Monterey pine forest in the retained forest within the housing area and within the preservation area shall be managed as described in Chapter 3.
- **Yadon's piperia** – Yadon's piperia habitat shall be enhanced and otherwise managed as identified in the Final Piperia Plan and as described in Chapter 4.
- **Other special-status species** - Dead trees and snags shall be retained where feasible as pallid bat habitat as described in Chapter 4.
- **Wetlands/Riparian Areas** - Wetland B-B and the riparian area within Preservation Area B shall be managed in accordance with the guidelines in the DMF/PDP Wetlands Report and the guidance in Chapter 3.

Monitoring, Success Criteria, and Contingency/Remedial Actions

Site-specific monitoring regimes, success criteria, and contingency/remedial actions will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, Yadon's piperia, other special status species and wetlands.

Residential Subdivision Resource Management Areas

A combined SSRMP shall be prepared and implemented for all open space parcels and retained habitat with residential subdivisions in Areas F-2, F-3, I-2, K, and PQR that are outside the designated building envelope and designated roads and access ways.

Goals

- Maintenance of forest health in the context of residential development
- Maintenance of building envelope limitations
- Maintenance of retained Gowen cypress

- Maintenance of retained special-status species
- Minimization of indirect effects on Preservation Area PQR

Actions

- **Monterey pine forest** – Monterey pine forest shall be managed in accordance with the guidance in Chapter 3 (Source = MMRP).
- **Building Envelopes** – Designated building envelopes, roads, and access ways shall constitute the limit of all buildings, grading, landscaping, irrigation, or other residential improvements. This limit shall be monitored, maintained, and any improvements or unauthorized landscape alterations outside of designated development areas shall be remediated upon discovery (Source = MMRP).
- **Gowen Cypress** - The following measures shall be incorporated into this SSRMP (Source = MMRP):
  - The area of Bishop pine/Gowen Cypress forest and a buffer area within present boundary of Lot 1 shall be added to the Area F-3 conservation area dedication and the Lot 1 boundary revised in the tentative map. A buffer area should be delineated in the field to contain all areas within a distance three times the canopy radius of any Gowen cypress or Bishop pine near the edge of the ESHA area.
  - Avoid direct loss of Gowen cypress tress in Areas F-2 and F-3 by establishing a setback buffer from the edge of the residential development to include the root system of Cypress trees. This buffer will extend out 3 times the canopy radius. All temporary construction, permanent development, and landscaping (plants, materials, and irrigation runoff) shall be prohibited from the setback buffer.
  - Provide the location of individual Gowen cypress trees and their required buffers on the lot maps. The maps would be provided to the County as part of the final approval process and approved before construction activities are initiated on the residential lot. The Pebble Beach Company would provide the County with evidence of deed restrictions to guarantee implementation of the SSRMP requirements and avoidance of these trees.
  - The County shall protect the Gowen cypress trees in the residential lots as a condition of individual residential project approval and such conditions shall become part of the SSRMP.
  - Avoid all removal of native Gowen cypress during utility line installation. Avoid substantial subsurface disruption to Gowen cypress root structures by relocating alignment and/or use of boring techniques, as necessary. Pebble Beach Company shall retain a certified arborist to review utility installation routes and make recommendations for protection of Gowen cypress. Arborist's report shall be provided to the County as part of final approval process and prior to construction.

- **Other Special Status Species** – Periodic management of retained Yadon's piperia habitat and periodic monitoring of retained Hooker's manzanita, sandmat manzanita, and planted/retained pine rose shall be conducted as described in Chapter 4. Dead trees and snags shall be retained where feasible as pallid bat habitat as described in Chapter 4.
- **Indirect Effects on Area PQR -** The building envelopes for Lots 1 through 4 in Area PQR shall be designed to allow a 30-foot setback from the southern lot boundary. This setback will provide a 30-foot undeveloped buffer between residential development and the southern edge of the residential lots to reduce indirect effects on the nearby Monterey pine forest and Spruance meadow. (Source = MMRP).

Monitoring, Success Criteria, and Contingency/Remedial Actions

Site-specific monitoring regimes, success criteria, and contingency/remedial actions will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, building envelopes, Gowen cypress, other special-status species and for the Area PQR lots.

5.2 Preservation Areas

Huckleberry Hill Natural Area and Contiguous Areas

This SSRMP shall cover the contiguous areas including HHNA/S.F.B. Morse Preserve, Preservation Area D, Preservation Area F-1, Preservation Area G, Preservation Area H, Conservation Area G-3, and the Corporation Yard Preservation Area. This SSRMP shall also cover the habitat along the Green Trail between HHNA and Spanish Bay.

Goals

- Maintenance of Monterey pine forest health
- Maintenance and enhancement of Monterey pygmy forest
- Management of Monterey clover occurrence
- Enhancement of suitable Yadon's piperia habitat
- Protection of other special-status plant species
- Erosion control and access control consistent with resource protection
- Protection of water quality and wetland functions
- Environmental education

All forest habitat in open space areas shall be managed according to OSAC Category IV policies and riparian and wetland habitat in accordance with OSAC Category VII policies for Category VIII (OSAC 1983).

Actions

- **Monterey pine forest** – Shall be managed as described in Chapter 3
- **Monterey pygmy forest** – Shall be enhanced and managed as described in Chapter 3, including restoration of Gowen cypress/Bishop pine in the designated area.
- **Monterey clover** – Shall be managed as described in Chapter 4.
- **Yadon's piperia** – Yadon's piperia habitat shall be enhanced and otherwise managed as identified in the Final Piperia Plan and as described in Chapter 4.
- **Other special status species** – Extant occurrences of other special-status species (Hooker's manzanita, pine rose, sandmat manzanita) shall be periodically monitored as part of pine forest monitoring and as described in Chapter 4. Dead trees and snags shall be retained where feasible as pallid bat habitat as described in Chapter 4.
- **Wetlands/Riparian Areas** – Manage wetlands and riparian areas in accordance with the guidance in the DMF/PDP Wetlands Plan, in Chapter 3 of this document, and
- **Erosion Control and Trail Maintenance (Source = MMRP)**
  - Implement an annual program of erosion control and trail maintenance along trails in the HHNA and long the Green Trail between Congress Road and Spanish Bay.
  - Monitor trails and trail crossings of drainages in HHNA and along the Green Trail during the wet season, temporarily close single-track trails and other HHNA trails to equestrian traffic when monitoring identifies that a substantial erosion potential exists, and conduct periodic maintenance as necessary to prevent soil erosion and sedimentation from subsequent storm events. The Pebble Beach Company shall develop a protocol for implementing monitoring, temporary trail closures, and periodic maintenance that will be incorporated into the HHNA and Contiguous Areas SSRMP. Trail closures should be coordinated between the Pebble Beach Company, the Pebble Beach Equestrian Center, and the Pebble Beach Riding and Trail Association.
- **Trail Access and Maintenance (Source = MMRP)**
  - Permanently close and revegetate all informal "social" trails in the HHNA and Contiguous Areas and along the Green Trail if permission is provided by the underlying landowner.
  - Further hinder the potential use of designated HHNA trails and the Green Trail by bicyclists and motorcyclists by placing physical barriers that will be difficult for bicyclists and motorcyclists to cross easily, but will allow

pedestrian and equestrian crossing) such as wooden barriers 18 to 20" high at trailheads and at entrances to single-track trails, and place signage at every trailhead stating the prohibition of bicycles and motorcycles.

- Restrict equestrian use of the two single-track trail segments that parallel drainages in the HHNA - the Rudd Crawford Trail (b/w Congress and Fire Rd. #6) and the Green Trail/Red Trail between a point 100 yards east of Congress Rd. and Fire Rd #6. Place horse barriers/gates and fencing at entry to these single-track trails segments. Post signage directing equestrian users to designated trails including trailhead oversize maps.
- Access directly from the New Equestrian Center to the Green/Red Trail westward can be provided by designating an equestrian trail between the Lower Sawmill and the last 100 yards of the Green Trail (east of Congress Road) using existing roads and informal trails that are presently cleared of vegetation, wherever feasible. If native vegetation must be cleared to facilitate this trail connection, a biological survey of the cleared area shall be conducted to identify a preferred route that avoids removal of special-status plant species to the maximum extent feasible. Tree trimming is allowed, but not removal to facilitate this trail connection. The Pebble Beach Company shall transplant, replant, or otherwise restore any removed special-status plants on a 1:1 basis within the nearest appropriate disturbed area within HHNA.
- Congress Road Trail Crossings – the Red and Green Trail crossings of Congress Road shall be improved to include crosswalk striping across the roadway, and warning signage for autos traveling both directions on Congress Road.
- Redesignate HHNA loop trail markings as necessary to show circulation routes as follows:
  - Access northwesterly toward the Coast – direct horse traffic to utilize Fire Road #3 and/or Fire Road #5 to reach Fire Road #2, then use Fire Road #2 to Congress Road, and then use the Blue Trail to reach the Green Trail heading northwest to MPCC and the coast.
  - Access southwesterly toward F-3, G, H, and PQR – direct horse traffic to utilize Fire Roads to reach the Green Trail heading westward toward F-3.
  - Access westerly toward F-1, and Forest Lake – direct horse traffic to Fire Roads to reach Fire Road #1, travel north to the Red Trail, use the Red Trail westward towards Forest Lake.
  - Circulation within HHNA – a round-trip circuit through parts of SFB Morse can be completed by utilizing Fire Roads #1 and #2 and utilizing the Blue Trail along Congress Road.
- Maintain the existing barriers along the dune habitat near Spanish Bay.

- **Weed Control** - Conduct, at least annually, weed control surveys of the HHNA, both along trails and off trails, and the Green Trail between Congress Road and Spanish Bay and use manual, mechanical, and

appropriate chemical or other means of control where infestation of weeds is identified. Annual weed monitoring should include targeted monitoring in areas of heavy horse use within the Monterey pygmy forest to examine if trail use and horse manure may be resulting in substantial spread of non-native invasive plant species or substantial change in native vegetation composition along trails. Weed control, more frequent manure cleanup, or other measures shall be implemented, as necessary to avoid substantial change in native Monterey pygmy forest vegetation (Source = MMRP).

- **Water Quality Management** – The Pebble Beach Company shall monitor the water quality of HHNA drainages and wetlands in proximity to areas of increased equestrian trail use and Sawmill Gulch between Congress Road and Spanish Bay. Monitoring shall be conducted prior to opening of the New Equestrian Center to establish a baseline by which to evaluate project-related changes. Monitoring shall be conducted three times annually for nutrients related to animal waste, in particular nitrogen and ammonia, to include the fall, after the first major storm, and in the spring. Monitoring results shall be submitted to Monterey County. If results indicate that a substantial increase in nutrients is resulting from increased equestrian trail use, the Pebble Beach Company shall identify adaptive management strategies to protect water quality. These measures may include periodic cleanup of animal waste near drainages, rerouting trail drainage away from streams and wetlands, reconfiguring trails to avoid intensive use in problem areas, manure bags, and/or other measures. Monitoring shall be conducted every year for 5 years and then every 5 years for a minimum of 15 years and until analytic results demonstrate that adaptive management measures have effectively reduced nutrient loading to background levels (Source = MMRP).
- **Environmental Education** - Incorporate environmental education about the sensitive resources of the HHNA and the Green Trail to all trail users and attendees at special events including measures that individuals can implement to lower their impact such as not hitching horses to trees, crossing drainages at marked crossings, staying on designated trails, and use of certified weed-free feed when available (Source = MMRP).

Monitoring, Success Criteria, and Contingency/Remedial Actions

Site-specific monitoring regimes will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, Monterey pygmy forest, Yadon's piperia, Monterey clover, other special-status species, wetlands, erosion control, access control, non-native species and water quality.

Lower Seal Rock Creek Area

A combined SSRMP shall be prepared for areas within the lower Seal Rock Creek Watershed including Preservation Area I-1, Preservation Area J, Conservation Area K, and Preservation Area L. While not part of the DMF/PDP,

resource management of the adjacent Indian Village area could be integrated with the measures included in the SSRMP.

Goals

- Maintenance and enhancement of forest health
- Maintenance of dune habitat
- Protection and enhancement of wetland and riparian functions
- Enhancement of suitable Yadon's piperia habitat
- Maintenance of other special-status species
- Creation of additional breeding ponds for California red-legged frog in Seal Rock Creek

All forest habitat in open space areas shall be managed according to OSAC Category IV policies, dune habitat according to OSAC Category II policies, and riparian and wetland habitat in accordance with OSAC Category VII policies for Category VIII (OSAC 1983).

Actions

- **Monterey pine forest** – All Monterey pine forest shall be managed in accordance with the guidelines in Chapter 3. Monterey pine forest shall be enhanced in Area J as described in Chapter 3.
- **Remnant Dune Habitat** – Remnant dune habitat in the western portion of Area L shall be managed according to Category II policies of the OSAC Management Plan.
- **Wetlands/Riparian Areas** – Manage these areas in accordance with the guidance in Chapter 3, the DMF/PDP Wetlands Plan and the Management policies for Category VIII (riparian and wetland habitat) outlined in the *OSAC Management Plan* (OSAC 1983)
- **Yadon's piperia** – Yadon's piperia habitat shall be enhanced and managed as described in the final Piperia Plan and in accordance with the guidance in Chapter 4.
- **Other special-status species -** Hickman's onion, pine rose, and Hooker's manzanita shall be monitored as described in Chapter 4. Dead trees and snags shall be retained where feasible as pallid bat habitat as described in Chapter 4.
- **California red-legged frog** – Three breeding ponds shall be created and maintained along as described in Chapter 4.

Monitoring, Success Criteria, and Contingency/Remedial Actions

Site-specific monitoring regimes, success criteria, and contingency/remedial actions will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, dune habitat, wetlands/riparian areas, Yadon's piperia, other special-status species, and California red-legged frog.

Preservation Area PQR

Goals

- Maintenance of forest health
- Enhancement of suitable Yadon's piperia habitat
- Protection and enhancement of wetland and riparian functions
- Restoration of Hickman's onion where feasible
- Maintenance of other special-status species

All forest habitat in open space areas shall be managed according to OSAC Category IV policies and riparian and wetland habitat in accordance with OSAC Category VII policies (OSAC 1983).

Actions

- **Monterey pine forest** - All Monterey pine forest shall be managed in accordance with the guidelines in Chapter 3.
- **Wetlands/Riparian Areas** – Manage these areas in accordance with the guidance in Chapter 3, the DMF/PDP Wetlands Plan and the Management policies for Category VIII (riparian and wetland habitat) outlined in the *OSAC Management Plan* (OSAC 1983)
- **Yadon's piperia** – Yadon's piperia habitat shall be enhanced and managed as described in the final Piperia Plan and in accordance with the guidance in Chapter 4.
- **Hickman's onion** – Hickman's onion shall be restored and managed in Area PQR as described in Chapter 4.
- **Other special-status species** – Other special status species (Hooker's manzanita, sandmat manzanita) shall be monitored as described in Chapter 4. Dead trees and snags shall be retained where feasible as pallid bat habitat as described in Chapter 4.

Monitoring, Success Criteria, and Contingency/Remedial Actions

Site-specific monitoring regimes, success criteria, and contingency/remedial actions will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, Yadon's piperia, other special-status species, wetlands, and Hickman's onion.

Old Capitol Preservation Area

Goals

- Restoration and Enhancement of Monterey pine forest
- Enhancement of Yadon's piperia
- Control of Degradation due to Unauthorized Access

Actions

- **Monterey pine forest** – Monterey pine forest shall be restored and enhanced as described in Chapter 3 of this document.
- **Yadon's piperia** – Yadon's piperia habitat shall be enhanced as described in the final Piperia Plan and in accordance with the guidelines in Chapter 4. This shall be conducted in concert with restoration and enhancement of Monterey pine forest.
- **Access controls** – The site currently is being degraded by unauthorized access and uncontrolled use. The Pebble Beach Company shall implement access controls to prevent and/or minimize resource damage due to unauthorized camping, mountain biking, motorcycle, and vehicle access, and illegal dumping. If at some point, the Pebble Beach Company and the City of Monterey mutually agree to provide formal public access, access controls and monitoring shall be similar to those required for HHNA (Source = Master RMP).

Monitoring, Success Criteria, and Contingency/Remedial Actions

Site-specific monitoring regimes, success criteria, and contingency/remedial actions will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, Yadon's piperia, and access control

Aguajito Preservation Area

Goals

- Maintenance of preserved Monterey pine forest
- Maintenance of preserved Yadon's piperia
- Control of Degradation due to Unauthorized Access

Actions

- **Monterey pine forest** – Monterey pine forest shall be managed as described in Chapter 3 of this document.
- **Yadon's piperia** – Yadon's piperia habitat shall be managed as described in the Piperia Plan and in accordance with the guidelines in Chapter 4.
- **Access controls** – If the sites ultimately dedicated are subject to threat of degradation by unauthorized access and uncontrolled use, the Pebble Beach Company shall implement access controls to prevent and/or minimize resource damage due to unauthorized camping, mountain biking, motorcycle, and vehicle access, and illegal dumping. If at some point, the Pebble Beach Company and the County of Monterey mutually agree to provide formal public access, access controls and monitoring shall be similar to those required for HHNA (Source = Master RMP).

Monitoring, Success Criteria, and Contingency/Remedial Actions

Site-specific monitoring regimes, success criteria, and contingency/remedial actions will be developed in the SSRMP based on the guidance described in this document for Monterey pine forest, Yadon's piperia, and access control.

Appendix A
The Pebble Beach Company's DMF/PDP Resource Management Plans

Available on Project FEIR CDROM, Project Web Site (http: http://www.co.monterey.ca.us/pbi/major/pbc/pbc_main.htm), and in Desk Review Copy at the Monterey County Planning & Building Inspection Department offices in Marina)

- DMF/PDP Ecological Management Plan (Pebble Beach Company 2001)
- DMF/PDP Biological Resources of the Del Monte Forest – Coastal Dunes (Zander & Associates 2001)
- DMF/PDP Biological Resources of the Del Monte Forest – Special-Status Species (Zander & Associates 2001)
- DMF/PDP Monterey Pine and Monterey Pine Forest Habitat (Zander &Associates 2002)
- DMF/PDP Forest Management Plan (Webster 2002)
- DMF/PDP Wetlands Report (WRA 2001)
- DMF/PDP Watershed Hydrology Report Phase II (Balance Hydrologics 2003)
- DMF/PDP Preconstruction Notice for Nationwide Permit No. 27 (WRA 2003)
- DMF/PDP Best Management Practices Plan for DMF/PDP Golf Course, Equestrian Center, and Driving Range (Questa 2003)
- DMF/PDP Applicant's Framework for RMP Implementation (Pebble Beach Company 2003)

Appendix B
Resource Maps

Available on Project FEIR CDROM, Project Web Site (http: http://www.co.monterey.ca.us/pbi/major/pbc/pbc_main.htm), and in Desk Review Copy at the Monterey County Planning & Building Inspection Department offices in Marina)

- Resource Maps From Appendix E of the DEIR
- Resource Maps from Appendix E of the PRDEIR
- Revised Resource Maps from the FEIR

Appendix C
Site Descriptions

Available on Project FEIR CDROM, Project Web Site (http: http://www.co.monterey.ca.us/pbi/major/pbc/pbc_main.htm), and in Desk Review Copy at the Monterey County Planning & Building Inspection Department offices in Marina)

- Site Descriptions from Appendix E of the DEIR as amended in the FEIR.

Appendix D
Resource Surveys/Inventories

Part of the Master RMP, but not publicly circulated due to sensitive resource information. On file at the Monterey County Planning & Building Inspection Department offices in Marina)

- Allen, David. 1996. Results of Two Consecutive Years of Surveys for Yadon's Piperia (*Piperia yadonii*) 1995 and 1996. Prepared for Pebble Beach .
- EcoSynthesis. 2003. Monterey Local Coastal Plan Wetland Determination for portions of the Pebble Beach Company's Del Monte Forest Preservation and Development Plant. Prepared for County of Monterey Planning and Building Inspection Department. May 26.
- Ecosystems West. 2003. Draft Transplantation Design, Enhancement, and Adaptive Management Plan TEAM) for Yadon's Piperia for the Pebble Beach Company's Del Monte Forest Preservation and Development Plan (Ecosystems West Consulting Group 2003)
- Entomological Consulting Services. 2000. Former Quarry at Spyglass Hill and Stevenson Roads in Pebble Beach, CA Report on Presence/Absence Survey in 2000 of Smith's Blue Butterfly. Prepared for Zander Associates.
- Huffman and Associates. 1994. An Evaluation of California's Native Monterey Pine Populations and the Potential for Sustainability.
- Jones & Stokes. 1996. Monterey Pine Forest Conservation Strategy Report.
- Jones & Stokes 1996. Final Recovery Strategies for Six Coastal Plant Species on the Monterey Peninsula. Prepared for California Department of Fish and Game.
- Jones & Stokes. 1994. Final Monterey Pine Forest Ecological Assessment: Historical Distribution, Ecology, and Current Status of Monterey Pine.

- Jones & Stokes. 1994. The Monterey Ecological Staircase: The Nature of Vegetation and Soils on Different Geomorphic Surfaces of the Monterey Peninsula with an Emphasis on Monterey Pine Forest.
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Appendix E
Bibliography

Available on Project FEIR CDROM, Project Web Site (http: http://www.co.monterey.ca.us/pbi/major/pbc/pbc_main.htm), and in Desk Review Copy at the Monterey County Planning & Building Inspection Department offices in Marina)

- Bibliography of references cited in Draft MRMP and relevant to resource management in the Del Monte Forest.